AMERICAN AGRICULTURIST.

Agriculture is the most healthful, the most useful, and the most noble employment of man.—WASHINGTON.

VOL. IV. NEW YORK, APRIL, 1845. NO. IV.

A. B. ALLEN, Editor. SAXTON & MILES, Publishers, 205 Broadway.

MAKING POTASH.

WE have been asked what kinds of wood will produce the most potash. The following table exhibits the average product in potassa in several plants, according to the researches of Vauquelin, Pertuis, Kirwan, and De Saussure:

In 1000 parts	Potassa
Pine or fir	0·45
Poplar	0·74
Beechwood	1·45
Oak	1·53
Boxwood	2·28
Willow	2·85
Elm and maple	3·90

We are of opinion that this table is a pretty fair criterion of the amount of potassa to be found in American trees. It is well known among those practically engaged in the manufacture, that the sugar maple is among the most valuable we have for making potash, and this tree, till transplanted from America, was unknown in Europe. We have no doubt there are several others highly valuable, and we hope what we have now said on this head will induce some one to give us full particulars on the whole subject. But it is not of much importance to the manufacturer of potash to know what kind of wood will make the most, unless he is a purchaser of ashes solely for this purpose. Those who make potash, usually do it from the ashes of the forest cut down to clear up the land for cultivation; the potash, therefore, is only a secondary consideration with them. They will see from the above table, that the ashes of elm and maple are the most valuable to make potash, and pine the least so. We wish some capable person could be induced to experiment on the ashes of American trees. It would be a matter of considerable importance to the country to do so. Of the manner of making potash, a friend thus writes us:

Forty years ago I was engaged in this business. My ashery building was forty feet square, with a deep underground story without a floor, ten or twelve feet from the ground to the timbers overhead, with an attic story to receive the ashes. My vats were both square and round (the shape being immaterial), with sliding doors in the floor of the attic, through which the ashes passed into the vats: the water was brought in pipes, and conducted into them as needed. The ley was conducted by small troughs from the vats into the boilers, which were large potash kettles, and set three in a furnace, one behind the other. The back kettle always boils first, and evaporates faster than the one next the mouth of the furnace. This boiling was continued until all the watery particles were evaporated, and a thick, dark substance formed, called salts. A very hot fire was still kept up, until the whole mass was melted; when it was dipped out with an iron ladle with a long handle, into iron kettles, to cool. Here it becomes a solid mass like a rock, and is then broken in pieces and put into strong air-tight casks for shipment. Lime ought always to be used in extracting the ley. This may be done by laying it over the straw at the bottom of the leach; or by laying it upon the top of the ashes after the leach is filled, and filtering the water through it; or it may be mixed in very small quantities with the ashes as they are put into the leach. I have used it in all these ways, and have found it to answer equally well in each. When the ley becomes so weak that it will not bear up an egg or potato, it ought then to pass through a fresh leach of ashes, until there be little or no strength to it, thus saving all that is valuable.

All cannot have a side hill on which to erect an ashery; some must, consequently, build on level ground; but it is not as convenient.

The ashes ought all to be drawn away and spread

upon land, as they are emptied from the leach. I have seen hills of leached ashes lying about an old ashery, when the land contiguous would have been doubled in value by having them spread upon it. Being about to embark in making potash again, I shall anxiously wait before doing so, to hear from some manufacturer, through your columns, on this subject, before I commence. I am desirous of availing myself of any improvements on this old method.

VALUE OF SUGAR.

Since it is decided that Texas shall become a part of the United States, sugar will henceforth be one of our most important products. Its value as food to man, beast, and even birds and fish, is little known and understood by the people at large. It is generally contended by writers on food and diet, that sugar cannot support life, but facts contradict this assertion in several instances. Martin, in his History of the British Colonies, thus speaks of it:

"A small quantity of sugar will sustain life, and enable the animal frame to undergo corporeal and (as I can add from personal experience) mental fatigue better than any other substance. Often have I travelled with the Arab over the burning desert, or with the wild Afric through his romantic country, and, when wearied with fatigue and a noontide sun, we have set ourselves down beneath an umbrageous canopy, and have shared with my companion his travelling provender—a few small balls of sugar mixed with spices, and hardened into a paste with flour. Invariably have I found two or three of these balls and a draught of water the best possible restorative, and even a stimulus to renewed exertion. During crop-time in the West-Indies, the negroes, although then hard worked, become fat, healthy, and cheerful. In Cochin-China, the body-guard of the king are allowed a sum of money daily with which they must buy sugar-canes, and eat a certain quantity thereof, in order to preserve their good looks and *embonpoint*; there are about 500 of these household troops, and their handsome appearance does honor to their food and to their royal master. Indeed, in Cochin-China, rice and sugar is the ordinary breakfast of people of all ages and stations; and they not only preserve all their fruits in sugar, but even the greater part of their leguminous vegetables, gourds, cucumbers, radishes, artichokes, the grain of the lotus, and the thick fleshy leaves of the aloes. I have eaten in India, after a six months' voyage, mutton killed in Leadenhall market, preserved in a cask of sugar, and as fresh as the day it was placed in the shambles. In the curing of meat, a portion of sugar is often mixed with the salt and saltpetre. The Kandyans of Ceylon preserve their venison in earthen pots of honey, and after being thus kept for two or three years its flavor would delight Epicurus himself. In tropical climates, the fresh juice of the cane is the most efficient remedy for various diseases, while its healing virtues are felt when applied to ulcers and sores. Sir John Pringle says the plague was never known to visit any country where sugar composes a material part of the diet of the inhabitants. Drs. Rush, Cullen, and other eminent physicians, are of the opinion that the frequency of malignant fevers of all kinds is lessened by the use of sugar; in disorders of the breast it forms an excellent demulcent, as also in weakness and acrid defluxions in other parts of the body. Dr. Franklin found great relief from the sickening pain of the stone by drinking half-a-pint of syrup of coarse brown sugar before bedtime, which he declared gave as much, if not more relief, than a dose of opium. That dreadful malady, once so prevalent on ship-board—scurvy—has been completely and instantaneously stopped, by putting the afflicted on a sugar diet. The diseases arising from worms, to which children are so subject, are prevented by the use of sugar, the love of which seems implanted by nature in them. As to the unfounded assertion of its injuring the teeth, let those who believe it visit the sugar plantations and look at the negroes and their children, whose teeth are daily employed in the mastication of sugar, and they will be convinced of the absurdity of the statement."

To this the Scotch Journal of Agriculture adds the following summary:

"Dr. Willis imputed a corrosive quality to sugar; but, in disproof of this notion, Dr. Slare has related, in the *Philosophical Transactions*, No. 337, that his grandfather had, all his lifetime, been in the habit of eating at his breakfast, a great quantity of sugar spread upon his bread and butter, and that he used also to put sugar into his ale and beer, and even into the sauce he ate with his meat. When eighty years of age, he had all his teeth strong and firm, able to crunch the hardest crust, and free from all pain or soreness in his gums. In his eighty-second year, one of his teeth dropped out, and soon after he lost another, which was one of the front teeth: in fact, all his teeth dropped out in two or three years; but, what is most remarkable, they were replaced by the growth of a perfectly new set. His hair was at that time of a very white color, but it now became much darker. He enjoyed good health and strength, and died in the ninety-ninth year of his age.

"The French people are great eaters of sugar, always carrying some of it about with them, in their pockets and reticules, and generally putting five or six large lumps into each cup of coffee.

"M. Chossat reports that sugar, when used as the *exclusive* or *principal* article of diet, produces quite opposite effects in some persons, according to the differences in their systems; for, while it fattens some, it creates bile which produces a diarrhœa and a wasting of the solids in other persons. The celebrated Bolivar had, by fatigue and privations, so injured the tone of his stomach, that he was unable at times to take any other food than sugar, which, in his case, was easy of digestion. His personal friends assure us that, in some of his last campaigns, he lived for weeks together upon sugar alone as a solid, with pure water as a liquid; but, probably, in nine hundred and ninety-nine cases out of a thousand, this diet would have brought the person adopting it to his grave; for, on those whose digestion is feeble, a large or exclusive allowance of sugar adds to their grievance, because the excess of nutriment, not being generally absorbed by their weakened system, becomes converted to bile, and causes great debility and wasting of the body. In seventeen experiments made on dogs, M. Chossat observed that, when the sugar diet fattened them, there was a general tendency to constipation meanwhile; and, on the contrary, when it produces an excess of bile in other dogs, their bowels were relaxed. Why English children suffer in their digestion after eating largely of sugar-plums, comfits,

&c., is chiefly owing, however, to those delicacies being composed of the refuse of starch-works, mixed with plaster of Paris, pipe-clay, or chalk, and having, indeed, as little sugar as will suffice to give them a palatable sweetness, and they are often colored with gamboge, and sometimes with red-lead, verdigris, and other mineral poisons.

"Everywhere, the beasts of the field, the birds of the air, the reptiles, fish, and insects, are found to have a great liking for sugar and honey. Mr. Martin says he has tamed the most savage and vicious horses with sugar, and has seen the most ferocious animals domesticated by being partly fed upon it. The tamers of lions and tigers owe their power over them chiefly to a judicious use of sugar and other sorts of sweets, and also of lavender-water, and various other perfumes, of which feline animals are remarkably fond. In the sugar season, in the West Indies, the horses, mules, and cattle soon acquire plumpness and strength, by partaking of the leavings of the sugar-canes, after the manufacturer has done with them. In Cochin China, the elephants, buffaloes, and horses are fattened with sugar. We learn, from the Memoirs of Dr. Edward Cartwright (1843), that that ingenious man used to fatten sheep on sugar. To birds this diet proves so nourishing, that the suppliers of the European poultry-markets find that sugar, along with hemp-seed and boiled wheat, will greatly fatten ruffs and reeves in the space of a fortnight."

Sugar is now successfully cultivated on the highlands in Louisiana, and the quality is said to be superior to that grown on the richer river bottoms. The grain is larger, and it is much less liable to drip. Recent improvements have lately been made at the South in boiling and refining sugar, the particulars of which we wish some of our friends in that quarter would furnish us for publication. We notice that several of the West India planters are boiling up their skimmings and refuse molasses with other food, and feeding it with much success and profit to their stock, thus saving them the necessity of turning it into that liquid fire, ycleped Rum. All animals, they find, thrive well on such food, which is reasonable enough, as all sweets abound in carbon. The mixture would fat poultry, swine, sheep, and cattle equally well, giving a delicacy and sweetness to the meat which nothing else will. No planter now can have an excuse for making rum—he can hereafter dispose of his inferior molasses to a greater profit and more useful purpose

A VETERAN HORSE.

The most extraordinary horse for his age which we have seen, is the veteran Charles, owned by O. Mauran, Esq., of this city. He was foaled in 1802, and reared by Mr. Brundage, of Horse Neck, Fairfield county, Connecticut. He was brought to New York, in 1810, and sold to Mr. Jesse Sackett. From Mr. S., he passed into the hands of Mr. Isaac Tucker, who kept a livery stable in John street. Mr. Oliver H. Hicks was his next owner, and from him Charles passed to others, all personally known to Mr. Mauran, who finally became his owner, on the 20th August, 1826. Since this, Mr. M. informs us, that he has been in almost constant use with him. He has not been sick or out of condition a single day during this whole time, nor ever had a sheet or a blanket on him.

Charles is fifteen hands high, of fine form and action, and evidently very well bred. He has a tanned muzzle, and is of deep brown color, interspersed now with grey hairs, particularly around the head. His teeth are still sound and good. He racks and gallops delightfully under the saddle, but has a fine square trot in harness. He is very playful and ambitious, and can still trot his mile within four minutes. We have had the pleasure of mounting him, and under our heavy weight (197 lbs.), he moves off as gaily and as easily as a colt. From the above record it will be seen that Charles is forty-three years old this spring. May he live and continue to bear his present kind master, till the United States has as many million inhabitants as he has years, and then as many more in addition.

The oldest horse ever known in England, we believe, was fifty-two.

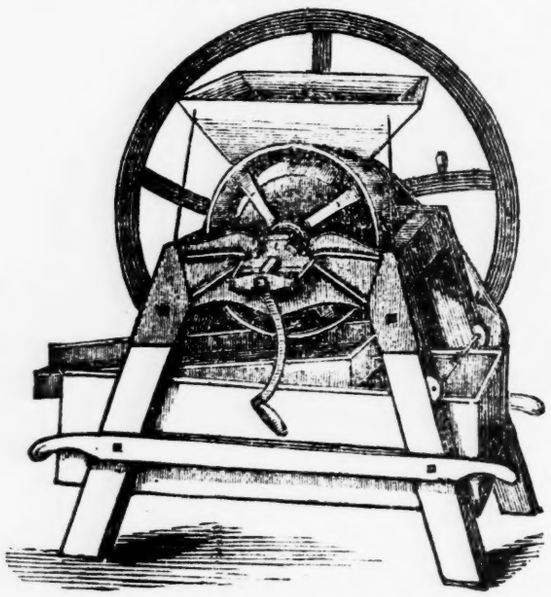
THE ALPACA.

The person who would successfully introduce this beautiful and useful animal into the United States, would be doing his country a great service. They will live upon the same food as sheep, but are more hardy, eating coarser grass, and enduring the winters better. They have so much improved in weight of fleece in England, as to yield from twelve to eighteen lbs. per head; in their native country, Peru, the yield is not over seven to ten lbs. per head. The wool is in great demand, and makes a very fine and somewhat peculiar kind of cloth, which is highly prized, especially by the ladies. The alpaca is very gentle, and one of the most graceful of animals. We should much prefer them to deer as an ornament to the park. Their color is pure white, brown, black, or spotted. We prefer the white or jet black. They can be had of Earl Derby, in the vicinity of Liverpool, for £40 (say $200) per pair. We wish some of our wealthy citizens would import a few. The money expended in doing so would be a mere trifle to them, and the substantial benefit ultimately conferred upon the United States incalculable. Our agricultural products are so low that the attention of our farmers should be turned to the introduction of everything new and useful, especially when as promising as the raising of the alpaca. We took particular note of these animals when abroad, and brought home samples of their wool for distribution among our friends. Upwards of 3,500,000 lbs. of alpaca wool were imported into Great Britain the past year, and it is extensively manufactured there, especially in Manchester and its vicinity. Keeping alpacas on the mountain ranges of the Southern States would yield the planters large profits, and compensate them for the low prices of cotton on the seaboard.

Farm of General Washington at Mount Vernon.—This contained about 10,000 acres in one body, rather more than fifteen square miles. In 1787 there were five hundred acres of this land in grass, 600 in oats, 700 in wheat, and as much more in corn, barley, beans, peas, and potatoes, besides 150 acres in turnips. The stock consisted of 140 horses, 112 cows, 335 working oxen, heifers and steers, and 500 sheep. Two hundred and fifty hands were constantly employed on the estate, and 24 plows kept in ope-

ration when the season permitted. In 1786, it is said, 150 hogs, weighing 10,590 lbs., were slaughtered for provisioning the family. These were exclusive of beef, mutton, fowls, and fish. The estate was conveniently divided into separate farms, which General Washington visited every pleasant day. He was constantly engaged in making experiments for the improvement of agriculture, and was considered foremost among the enlightened farmers of his day. What a different aspect the farm now presents!

CORN MILL.—Fig. 21.



The above is a cut of Sinclair's patent Corn Mill. It is well adapted for plantation use at the South, or for the isolated farmers of the West, and the possession of one of these machines enables every one to become his own miller. They grind coarse or fine meal with equal facility, perfection and despatch, at the rate of two and a half to three bushels per hour. When the screen is attached (as shown in the centre of the cut), and the fine meal is required to be ground, it will be necessary to drive the mill by horse-power. Coarse meal for horses may be ground by two men with good success. The grinding plates, which are made of the hardest composition metal, will last about two years without renewing; after they are worn smooth new ones may be put on without difficulty. A feeder is attached to the axle which is intended to pass the grain into the plates at regular intervals. This feeder is important, and obviates the difficulty and objection to cast iron mills generally.

Directions for Managing the Corn Mill.—1st. See that the hopper, bolting-box, screen, pulleys and band, are properly put on and adjusted. 2d. Place the mill pulley on a line with the power band-wheel, and secure the mill to the floor or ground by cleets and braces. 3d. When all is thus fixed and ready, start the machine, then fill the hopper, and while the mill is running screw up the two thumb-screws, until the plates come sufficiently in contact to grind fine meal. When the plates are properly set or screwed up, the product will be about three quarters sifted meal and one quarter tailings. 4th. The corn should be old or well dried, otherwise the grinding will be very imperfect. 5th. Keep the journals well oiled with the best sperm or sweet oil. 6th. If driven by hand-power the screen and short band should be taken off, and the sifting done separate by hand, in the common way; these mills, however, should be driven by horse-power, if possible, at the rate of two hundred revolutions per minute, which is the proper speed to cause them to perform properly, and which speed cannot be got up by hand-power. 7th. If the main driving-band stretches or becomes slack, move the machine farther off. 8th. Should the feeder fail to act, stir and loosen up the corn at bottom of the hopper. The plates may also clog, especially if damp corn is put into the hopper. They may be cleaned by taking off the cap that covers them, and briskly rubbing between the plates a flat coarse brush or stick. Before removing the cap, it will be necessary to run the band-pulleys back, which may be done by slacking the screw that confines it. When necessary to put on new plates, remove the front iron frame, pulley, plate cap, and the caps over the boxes, which will allow the axle to be drawn out and to expose the plates, which remove and put on others, minding to have them fitted on exactly true. Price, with one set extra plates, $40.

PERUVIAN AND AFRICAN GUANO.

American Agricultural Association.—By order of this Association, at its last monthly meeting, the following resolution was passed:

"*Resolved*, That the Association cause an analysis to be made of the cargoes of guano from Ichaboe and Peru, now in the market for the use of members and all persons in the neighborhood; and that a report be drawn up with the analysis containing suggestions for the application of the manure; the whole to be published as early as practicable in the agricultural papers of this city and vicinity."

Peruvian Guano.—The specimen was obtained from Mr. Allen, 205 Broadway, who is an agent for the sale of it.

Uric acid	10·5
Ammonia	19·0
Phosphoric acid	14·0
Lime and magnesia	16·0
Salts of soda and potash	6·0
Oxalic acid, with carbonic and muriatic acids	13·0
Water	13·0
Sand	2·0
Volatile and organic matters	6·5
	100·00

Ichaboe Guano.—The specimen was obtained from Mr. Irvin, Front street, and is a fair sample.

Ammonia	13·5
Humic acid	4·0
Phosphates	25·0
Oxalic, &c., acids	20·0
Salts of soda, &c.	7·0
Water and volatile matter	27·5
Sand	3·0
	100·00

Prices and Relative Value of the Peruvian and African Guano.—These specimens are both very fair, and represent the peculiarities of the two kinds of guano. The absence of uric acid in the African variety, is the cause of its inferiority; for that body decaying gradually in the soil, continues to yield carbonate of ammonia for a long time, so that the stimulating effects of the guano are seen the next year,

whilst the African is more fleeting. The prices of the two are, for Peruvian $45, and for African $35 per ton, for quantities amounting to five tons; and this may be considered, all things being taken into the account, a fair representation of their value in agriculture.

The African being soluble to the extent of 40 per cent., is better adapted for watering plants, and where very rapid growth is wanted. The Peruvian, on the other hand, acts for a longer time, and is better calculated for crops which continue to grow vigorously during many weeks. The two will probably produce very similar effects for one crop; but the Peruvian is much more active on the second crop.

Crops to which it is Applied.—It is hardly necessary to state, that the application may be made to every crop, for experiments are already multiplied with nearly every common plant or tree: to enumerate a few is sufficient. Wheat, corn, grass, the cerealia, sugar-cane, tobacco, apple, pear, and other fruit trees, flowers, cabbages, turnips, and other cruciferous plants; the experiments are fewest on leguminous plants. But the effect of guano will not be equal on all; for those plants requiring most stable manure, such as tobacco, turnips, and corn, are more benefitted than grass, oats, or such as require less—the chief effect of the manure being due to the quantity of the ammonia it contains. The reason guano is serviceable to all plants, arises from its containing every saline and organic matter they require as food.

Kinds of Soil to which it is Applied.—It is used beneficially on all soils; for as it contains every element necessary to plants, it is independent of the quality of the soil—*one great point* being attended to, that the land be in *good tilth;* for, otherwise, the tender roots of the vegetable find an obstruction to free growth, and are crippled. Poor, well-tilled soils exhibit most increase by guano, for in them some essential to the growth of plants is more likely to be absent.

Amount to be Applied.—On wheat 250 lbs. per acre will be an average for a fair soil; 300 lbs. per acre for one that is poor, and 200 for a good soil. Corn, potatoes, turnips, cabbages, and garden vegetables, will require 300 lbs. in fair lands; but the amount may be diminished by 50 lbs., if two applications are made instead of one. For grass, rye, and oats, 200 lbs. will be enough.

Time and Mode of Application.—Seeds may be prepared by soaking in a solution of two lbs. of guano to the gallon of water, and this will answer for a first manuring, if they are left sufficiently long to exhibit signs of germination. Wheat and other small grains should be steeped in this solution about sixty hours, corn about one hundred hours. Thus steeped, the seeds of smut will also be destroyed. Half the quantity of guano allowed by these directions per acre, to be applied when the plant has fairly started, and is in second leaf. By this timely addition, the effects of many insects are avoided, and the seedling at once takes on a robust habit. The remaining half should be applied to the small grain crops when they are throwing out new stems, or tillering; to corn, as the tassel appears, or at the second hoeing, and so with other hoed crops. This application should be made, therefore, at the latest period of working, and as nearly before flowering as practicable. The guano should be sowed with a mixture of fine soil, gypsum or charcoal, to give it bulk, and divide the particles. No lumps should be thrown amongst the plants, for they burn them; and where an extensive application is to be made, it is better to screen the manure and pound the lumps. In sowing, reach the soil, if possible, for it is unserviceable to sprinkle it on the plants, and frequently destroys them. Select a season when the land is wet or moist, or when rain may be expected; for in dry weather the guano does not answer well, or even does injury, by burning the plant. But if the crop suits, always prefer manuring the plant or hill; do this whilst hoeing; less guano is thus used, and more certain effects result. One tablespoonful to the hill of corn, tobacco, potatoes, &c., is an abundance for each application. If a solution be preferred, mix one pound in ten gallons of water, and water sparingly with this on the soil, and not *on the plants*, at the times before mentioned, taking care to stir up the insoluble portion when applied. For this purpose, the African variety will be most suitable. Or, where rapid growth is wanted, irrespective of seed, the clear solution may be applied; the insoluble matter (phosphates, &c.) being reserved for wheat and corn. Guano may be composted with common soil, dry muck, road scrapings, or anything but *lime* and *unleached ashes;* for these liberate the free ammonia, and thus diminish the effects of the manure.

Value, Compared with other Manures.—So far as the experiments in England and Scotland may be adduced, one cwt. of guano is equal to about five tons of farm-yard manure on an average; but it is much higher for turnips than for grass, &c. It would be advisable that in the very different climate of the United States, comparative experiments be made on this point. Let twenty single cart loads of stable manure be used per acre on wheat, corn, &c., and contrasted with four cwt. of guano. It would also be of service to the agricultural world, that some experiments were made on the value of the organic and inorganic portions of guano. A plot of ground eight square yards may be divided into two parts, half manured with the ordinary guano, and half with the ashes remaining after burning. In this way the proportionate effect of the organic and saline parts would be estimated, and the conclusion be serviceable, insomuch as the saline matters can be mixed into a compost for a trifling sum, and thus the expense of guano avoided.

D. P. GARDNER.

March 12, 1845.

Notice.—This publication is made by the American Agricultural Association, not that parties may be induced to purchase guano, but that attention may be called to the varieties for sale, and other particulars for the diffusion of correct information. It is their intention to examine all available manures, and make them known publicly, as well as the results of careful experiments in agriculture, horticulture, and the management of stock, and to issue not only information from time to time, but a series of Transactions, embodying the particulars of their experiments, analyses, &c. All those wishing to advance the cause of improvement are respectfully solicited to become members, and forward suggestions for the advancement of agriculture. Letters or communications to be addressed, post-paid, to the Secretary of the Executive Committee, Dr. D. P. Gardner, 412 Fourth street, New York. By order of the Executive Committee,

R. L. PELL, *Chairman*.

THE SMALL GRAINS.

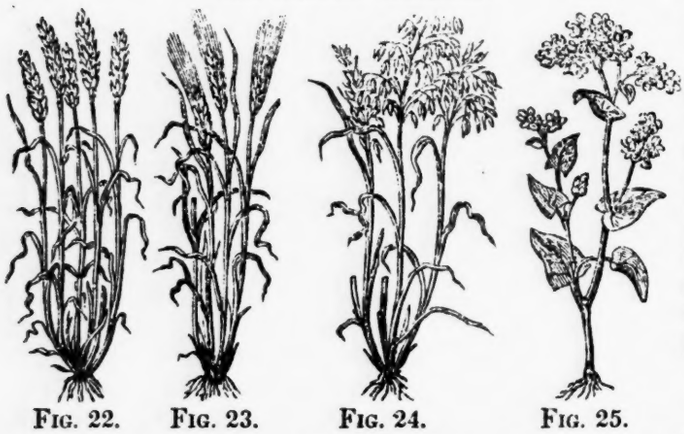


FIG. 22. FIG. 23. FIG. 24. FIG. 25.

Figure 22, is bald wheat, that is, there are no beards growing on the heads; and such kinds are considered best, and are most approved of by the nice cultivators of wheat.

Figure 23, is bearded wheat. There are some excellent kinds of this variety; but generally speaking they are not as well liked nor as much cultivated as the bald kinds. The prickly beards are a great objection.

Figure 24, is the common kind of oats, and should be cultivated at the south and west more than it now is. The imperial, barley, and potato oats are considered the heaviest and best kinds. The horsemane or side oats is a good variety, though much lighter than the other three kinds, and far more likely to lodge when grown.

Figure 25, is buckwheat, of which we know but one kind. It is much cultivated at the north as a late grain crop. To sow it in July is early enough in this latitude. It is sometimes sown as late as August, producing a good crop.

PRICKING HORSES.

THE ordinary method of nicking, or more properly pricking horses, is barbarous in the extreme. As practised in America, it is much more simple, effectual, and less painful. If the tail is to be docked, let that first be done, and then permitted to heal perfectly. Perhaps this operation may make the horse carry his tail so well as to prevent the necessity of pricking. But if it does not, then let him be pricked.

Operation.—The tail has four cords, two upper and two lower. The upper ones raise the tail, the lower ones depress it, and these last alone are to be cut. Take a sharp penknife with a long slender blade; insert the blade between the bone and under cord, two inches from the body; place the thumb of the hand holding the knife against the under part of the tail, and opposite the blade. Then press the blade toward the thumb against the cord, and cut the cord off, but do not let the knife cut through the skin. The cord is firm, and it will easily be known when it is cut off. The thumb will tell when to desist, that the skin may not be cut. Sever the cord twice on each side in the same manner. Let the cuts be two inches apart. The cord is nearly destitute of sensation; yet when the tail is pricked in the old manner, the wound to the skin and flesh is severe, and much fever is induced, and it takes a long time to heal. But with this method, the horse's tail will not bleed, nor will it be sore under ordinary circumstances more than three days; and he will be pulleyed and his tail made in one half of the time required by the old method.

For our part we must confess that we perfectly detest docking and pricking; and when we see a bob-tailed horse or dog, or any other quadruped save a sheep, a spice of the indignation of the honest Spaniard comes over us, and we almost wish the performers of these operations phlebotomized themselves. Let horses, cattle, pigs, dogs, and cats, carry their own natural ears and tails at full length, according to their own peculiar fancy, is our doctrine.

PREVENTIVES OF ROT IN THE POTATO.

ONE of the best preventives of this destructive disease in potatoes which we have heard of, and most easily practised, is that given by Mr. Pell, namely: Cut the potatoes into suitable sized pieces for planting, sprinkle newly slacked lime over them, and let them lie a fortnight or so, and then plant. Others have planted with good effect immediately after sprinkling the lime, and turning the cut seed over with a shovel in a heap. Salt applied in the same manner is recommended by Mr. Teschemacher as an equally good preventive. If whole or cut potatoes were soaked in a strong brine, and then spread out on the ground in a dry day, and sprinkled well with lime previous to planting, it would unquestionably prevent the generation of the fungus. We have never tried this remedy, and there is a possibility that the brine might kill the vegetative principle of the potato; we, therefore, mention it merely for experiment on a small scale. Take ten potatoes and soak them five minutes in brine, blood-warm; ten others 10 minutes; ten others 15; and so on up to an hour: dry them off with lime, plant in separate drills, and report the experiment to us next fall.

On land not in the immediate vicinity of the seacoast, salt spread upon the hills directly after planting, at the rate of 15 to 30 bushels per acre, is recommended; newly slacked lime, in the same manner, or broad cast and harrowed in before planting, at the rate of 25 to 50 bushels on land not already dosed with it; charcoal dust from 50 to 100 bushels applied in the same manner to any but recently cleared land. All these substances might be applied with good effect around the vines on the hill immediately after the first time hoeing. Guano is said to be an excellent remedy, put on the hill after planting, at the rate of 300 lbs. per acre, or in a compost made of four parts of good soil, intimately mixed with one part of guano, and applied in the hill at planting time, or round the hill after the first time hoeing. Poudrette is highly spoken of; but we should rely more upon salt, lime, and charcoal, than any other substances. Any two of these may be mixed together before applying them, or all three, if at hand and convenient.

The potato crop is a most important one, and every farmer should make more or less experiments himself the present season, with various substances, and not rely upon his neighbors to do so for him. The rot must be stayed in its progress or it will be of incalculable injury to the country. Barn-yard and all animal manures should be avoided, as they are said to increase if not generate the rot.

CORN MARKER.

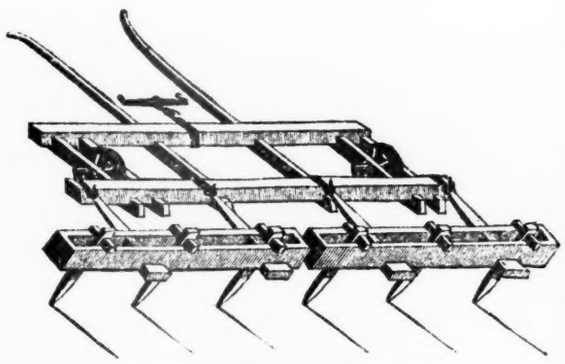
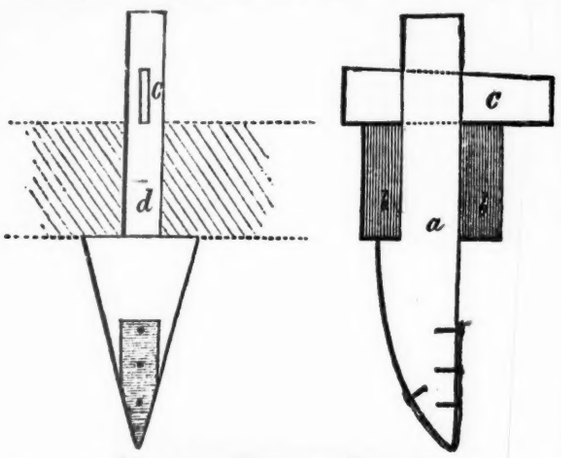


FIG. 26.

We are under obligation to Mr. Leavenworth for the above sketch of his corn marker, which for drilling or furrowing out for planting corn, potatoes, or other seed, will do the work of half a dozen plows. It may be constructed of any required width, from 3 feet to 30, or more if wished, and with or without wheels, and double as shown in the cut, or single if preferred. Wheels make it move easier and steadier. The teeth or markers may be set any distance apart. We think farmers will find this a great labor-saving machine; and it is better to plant *upon* the soil rather than *in* the furrow, as the bottom of this is more or less hardened by the plow.

The head of the corn planter is made of two pieces of 1½ inch plank, any required length, and 6 inches wide, riveted or pinned together, leaving a space 1½ inches between them. The teeth are set in this space as near as desired, and secured by keys. Six rows 2 feet apart, or four rows 3 feet apart, may be marked out with ease, by a single horse. The marker may be made lighter for garden work, and be drawn by hand.



MARKING TEETH.—FIG. 27.

One of these teeth presents a side and the other a front view. A strip of hoop iron is put on the end, which makes them wear much longer. *a*, tooth; *b*, *b*, head; *c*, key; *d*, tenon of the tooth fits in between the head; *e*, mortice for the key.

TO PREVENT BIRDS AND SQUIRRELS DESTROYING CORN.—Soak the seed half a day or so previous to planting in a moderately strong solution of saltpetre and copperas, and dry it with ashes, plaster or lime sprinkled over it. This preparation will effectually guard the seed from birds and squirrels, and give the corn blade, after germinating, a rapid start.

FAT SHEEP.

MAJOR Philip Reybold recently sent a very fine lot of fifty fat sheep to this market, principally of high grade Leicesters, varying from three-fourths to seven-eighths blood. Thirty head of these sheep were wethers, and twenty of them were ewes. The live weight of the wethers was 5,889 lbs.; the dead weight, 3,241 lbs., exclusive of the pelts; making a difference of 2,648 lbs., or within a fraction of 45 per cent. The largest wether weighed, alive, 292 lbs., the smallest, 189 lbs. The largest weighed, dead, 180 lbs.; the smallest 92 lbs. The live weight of the ewes was 2,893 lbs.; the dead weight, 1,432 lbs.; making a difference of 1,461 lbs., or a fraction over 50 per cent. The reader must not draw a conclusion in favor of the wethers in consequence of their losing less per cent., dead weight, as the ewes were several years the oldest, and consequently did not fat so kindly. The wethers were all two years old past. The largest ewe weighed alive, 182 lbs.; the smallest, 127 lbs. The largest weighed dead, 84 lbs.; the smallest 60 lbs. The butcher in this city contracted to pay 12½ cents per lb., dead weight, for the lot, delivered at Philadelphia, keeping the pelts for which they paid nothing. These averaged $1 77 each.

It was a very fine lot of sheep and did their breeder great credit. They were shown in Wall and several other of our streets a few days before being slaughtered, and were greatly admired, even by the money changers, who no doubt gladly parted with some of their cash for the mutton, and for once, themselves, got *fleeced*. The Hon. Daniel Webster at the same time was staying at the Astor House, and took the pains to walk up to the butcher's stall and choose one. We understand that Messrs. Colman & Stetson served this up in their best style, and, after dining a knot of political aspirants upon it, they united in a *stomach-felt* and patriotic toast to modern as well as ancient *Greece* (grease). But the best of the finale was, that Mr. Reybold carried home a pocket full of cash, and felt amply remunerated for his trouble.

FARM OF MR. ROBINSON.

RETURNING from the State Agricultural Society show at Poughkeepsie, last September, we stopped over night at Newburg, and early the next morning walked out about a mile and a half to the farm of Capt. Henry Robinson.

This comprises 260 acres, and is part of an elevated plateau rising gradually from the Hudson. The farm is under a good state of cultivation, and is devoted principally to the dairy; the veteran Captain keeping upward of 40 head of noble cows, a high cross of Durham. He informed us that he had taken great pains when he first commenced operations there several years ago, to endeavor to procure a stock of superior native milkers; but with all his trouble and care in choosing, he got so often disappointed that he at length gave the matter up in despair, and took to crossing with a good Short Horn bull. The result of this is, that he has a choice herd now of fine formed animals, nearly every one of which is a superior dairy cow; and when dried off they will fat kindly, and make a superior butcher's beast, so that he reaps a double profit in consequence of having improved his herd. These he keeps principally on the soiling system, allowing them to have a sufficient run in a lot near by the barn to give them ex-

ercise. Rye, clover, and corn, cut green, is their principal food in summer. Capt. R. has an excellent corn-stalk cutting machine of his own invention, which we think highly of, when one wants to do business on a large scale. It is very simple in its construction, is moved by a two horse-power, and we understood him to say, that it would cut 240 bushels of corn-stalks per hour, measured after cutting. His churning is also done by horse-power; one horse moving the dashers of four large barrel churns, and bringing the butter with ease and rapidity. The stables are extensive and convenient, occupying two sides of the barn-yard. The piggery is also well arranged, and is graced with a fine stock of the large English white breed imported by himself. These animals easily attain 400 to 600 lbs. at eighteen months and two years old. They are generally very fine in their hair and all other points.

Captain Robinson commanded for some time one of the Havre packets out of this port, and though he lives on one of the noblest rivers in the world, this does not seem to quite satisfy his sailor habits; accordingly, he has formed him a mimic sea on his own territory; stocked it with delicious European carp, imported by himself, and other fish; built him a sail-boat, and can still make his voyages whenever disposed, and harpoon and hook the scaly inhabitants of the deep, and not move from his farm. He is stocking the Hudson river at Newburg with carp, and generally gives them, when to be spared, to his neighbors. Mr. Pell, of Ulster, informed us that it was here he procured his stock.

The house is neat and handsome, and commands a fine view of the noble Hudson, the adjacent country, and bold mountain scenery, opposite and below, of the Highlands. Among the ornaments of the grounds around, we noticed a full length female statue resembling the graceful figure-head of a ship. We forgot to ask, but would venture to guess, it might have been that which adorned his own gallant craft transferred by the veteran sailor, by way of memento, from her bows, to grace the lawn of his pleasure-grounds. If so, it must be a happy and quiet change to the fair figure. Having now and then taken a toss on the rough old ocean ourselves, we know something of its upheavings, and could not but congratulate the fair statue upon finishing its stormy voyages and being moored at last in so comfortable a birth.

AMERICAN AGRICULTURAL ASSOCIATION.

The regular monthly meeting of this Association was held in the rooms of the Historical Society, at the University, on Monday evening 3d of March. Hon. Luther Bradish, the President, in the Chair.

The meeting was well attended, and several distinguished gentlemen from abroad were present. The table was adorned with beautiful plants in full bloom, and there were a variety of choice seeds sent in for exhibition—oats from Mr. Pell—wheat from Mr. Seeley, and quite a package of various kinds of seeds from the Hon. H. L. Ellsworth, Commissioner of Patents at Washington.

The Executive Committee made a favorable report, showing an increase of 47 members the past month.

Dr. Daniel P. Gardner was appointed chemist of the Association.

Mr. Kerr, from Scotland, read an interesting paper, giving a condensed view of the agriculture of Scotland.

Mr. R. L. Pell, of Pelham, read a paper on the raising of several crops of the same kind in the same season, and exhibited a specimen of oats which were a part of the second crop raised the past year from the same ground as the first were taken from. He also read an interesting paper on soiling.

William A Seeley, Esq, read an extract from a letter to Mr. Allen, from Mr. Norton, of Connecticut, now in Scotland (see page 123 of this number for the same), on the subject of electricity, giving an account of experiments made in England by Mr. Pine and others, of its effects on vegetation. After this he entered into a succinct history of the whole matter, and finished by generously offering any part of his farm on Staten Island to the Association the ensuing season, to conduct any desired experiments in electricity or general agriculture.

Several resolutions were passed in the course of the evening. One, that specimens of the Peruvian and African guano, now in this market, should be analyzed, and the analysis, with suitable directions for its use, be furnished the different papers for publication as soon as practicable. (For this analysis, &c., see page 108 of this Number.)

An excellent collation was prepared for all present, in the upper room of the Historical Society, to which, after the meeting was over, the members adjourned, and indulged in free and social intercourse.

The next meeting will be held at the same place on the 7th of April.

Subsoil Plowing.—We are glad to see that this new branch of husbandry is obtaining increased attention. We were among the first to adopt it in this country, having made several experiments in it seven years ago. Several of our farmers in this vicinity have procured subsoil plows, determined on trying them effectually the present season. Those who used them last year are highly satisfied with their experiments, and generally intend extending them this spring. They stir the soil without turning it up, which gives the roots of crops a wider range for their food.

Horticultural Society, Cleveland, Ohio.—We beg to return our thanks to this Society, through their Secretary, J. F. Hanks, Esq., for the honor they have done us in electing us an Honorary Corresponding Member thereof. We have frequently noticed its praiseworthy efforts in behalf of Horticulture, and are pleased to hear that they have met with so much success.

To Exchange Papers.—We observe the wholesale plunderings from our journal begun again, and kept up for the past three months. Long and valuable articles, together with cuts, have, in several instances, been copied, without the slightest hint given of the source from whence taken. We have commenced sending these papers back, marking the articles, and if they are not credited hereafter, we intend to stop the exchange.

We would respectfully call the attention of our readers to the reviews of books in this Number. Most of them are highly valuable works, and should be placed in the library of every Farmers' Club.

THE BLACK TARTARIAN CHERRY.

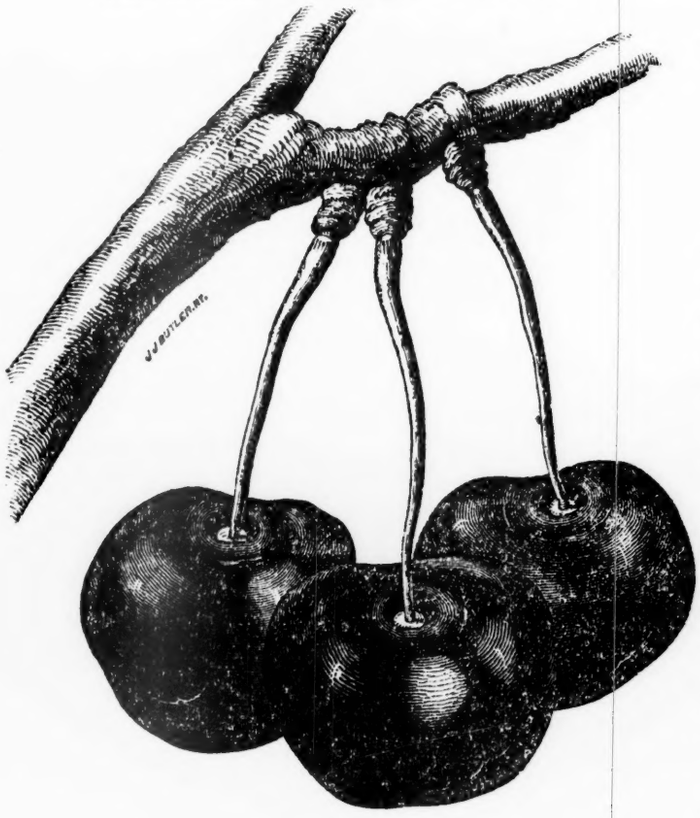


FIG. 28.

WITH this fruit perhaps many of your readers are acquainted; but, in visiting different parts of the country, I have been surprised to find that this, with many other fine varieties, is entirely unknown. Notwithstanding the exertions made by Horticultural Societies to encourage the growth of good fruit, and by nurserymen to introduce the trees, there is still a great dearth of these, and much may be done to awaken public attention to the subject, by publishing in our leading agricultural journals, correct representations and accurate descriptions of their qualities and general utility. I have accordingly procured the loan of a proof-sheet from Mr. Brown's work on Trees, treating of the variety or fruit in question, which I herewith present, hoping that it will elicit all the attention it deserves.

"BLACK TARTARIAN—known also by the names of *Circassian Cherry, Superb Circassian, Black Russian Cherry, Fraser's Black Heart, and Ronald's Black Heart.* This variety is said to have originated in Spain, whence it was transmitted to Russia, and was carried from the last-named country to England, by the late Mr. John Fraser. In the account given of it, however, in the 'Pomona Londinensis,' it is stated to have been introduced into Britain from Circassia, by Mr. John Ronalds, of Brentford, in 1794. It is distinguished for its large, obtuse-heart-shaped, shining purplish-black fruit, with an uneven surface, containing a rich, juicy, tender, purplish flesh, and differs from many other varieties in hanging in clusters, which enables it to be easily gathered. It is a cherry of great excellence, bears plentifully as a standard, and when ripe, which usually occurs early in July, it readily commands in market, double the price of the ordinary kinds. This tree is valuable also, not only for its fruit alone, but from its vigorous growth, spreading branches, and symmetrical form, it is well adapted for the purposes of ornament, and is well worthy of general cultivation."

ROBERT B. PARSONS.

Flushing, L. I., 3mo. 12, 1845.

TO GET RID OF DEAD LOGS IN A FIELD.—Mr. Williams, of Florida, writes us: With the Eagle plow I am making trenches by running it two or three times back and forward along side of the logs in my fields, and then roll them in and turn upon them the dirt thrown out by the plow. In this way the log is not only got rid of, but the labor of cutting, lifting, piling, and burning is saved. When decomposed it furnishes a rich bed of vegetable matter to the land. You would be surprised at the rapidity with which a log is consigned to its narrow house. Protecting the land from washing is another great advantage of this process of log burying.

AGRICULTURE FOR STUDENTS OF DIVINITY.—I have seen it stated by some one who has travelled in Holland, that a law is now in existence in that country, which obliges each student of divinity to attend a two years' course of lectures on agricultural subjects, before being licensed to preach the Gospel. I wish most sincerely that such a law was in existence in the United States, with a supplement that they shall not only attend such lectures, but should be obliged to labor at all the different branches on which these lectures treated during the term of two years. There would not be then, as now, so many broken-down young men in the ministry, for want of physical exercise to give rest to the mental. Besides, there would be another advantage—they would not be afraid to preach the truth on account of displeasing their hearers, as they would always be prepared to support themselves and families by their agricultural labor, should any unhappy division arise whereby a removal from the ministry should occur. I have tried it.

CLERICUS.

MODE OF RAISING ASPARAGUS BY THE ARABS.—Among the list of fruits and vegetables in the "Treatise on Agriculture," by Abu Zacharia Jahia Ben Mohamad Ben Ahmad, a native of Seville, in Spain, is mentioned the following singular mode of raising asparagus, as well as a remarkable property possessed by that vegetable:—If a stalk of asparagus be smeared with honey, and after being sprinkled with oak ashes, be committed to the ground, it will produce many stems, particularly white ones, of considerable thickness, and sometimes party-colored towards the top.

To Remove the Taint in Meat.—The Arabian author adds, that the pulverized root of the asparagus, mixed with oil, if rubbed into meat either already tainted, or almost corrupted (provided this be previously washed), will totally remove its fœtor or taint.

B.

We must apologise to Dr. Kirtland, the respected writer of the following article, for not inserting it sooner. It was addressed to Elisha Whittlesey, Esq., of Ohio, and kindly forwarded us for publication several months since. We should be happy to hear from Dr. K. direct, on the fruits of the West, for few have paid more attention to them, or are equally capable of giving their correct descriptions.

THE FOX GRAPE.

Your communication respecting a seedling grape, said to have been found in Rockport, and other matters relating to horticulture, was received on the 1st of March last. Having received a similar account of a native grape in that locality, twenty years since, from Mr. Canfield, I was determined to find it if possible. During the past summer, several individuals have given me information where it might be found; but on pursuing up the matter, I could only meet with the common fox grape, till I at length concluded that this seedling must grow in the garden of the famed *Prester John*, who, you know, existed in the imagination of the earlier adventurers. I was still reluctant to believe that it was an ideal thing, especially as I recollected once to have picked a bunch of peculiar grapes while creeping through a swamp, five or six miles up the Cuyahoga. At the moment, I was pursuing, stealthily, a flock of partridges, with my gun in hand, and I ate the fruit without much attention; but it then occurred to me that the flavor was sparkling, and resembled somewhat that of the Alexander. I have never again visited that locality.

Two weeks before the Isabella grape ripened in this city, Mrs. Cushing presented our Horticultural Society a bunch of fine-looking, and apparently mature grapes. No name or history could then be furnished, only that it was the product of a vine, cultivated in Dr. Cushing's garden, and growing there when the place was purchased by him.

The fruit was referred to our Committee on Synonymes. They reported, "that it was an unique, unknown to them, but worthy of cultivation, from its early period of ripening, as well as its other good properties." Their belief at the time was, that it was probably of foreign origin. Dr. Cushing has since thoroughly investigated the matter, and by his authority, I am permitted to inform you, "that Mr. Case (with whom you are well acquainted, and whose accuracy in all kinds of business is proverbial), asserts that he, many years since, introduced the original vine into the gardens of Cleveland, from the banks of Rocky River, and that from that stock was propagated the vine now growing in Dr. Cushing's garden."

Cultivation seems to have greatly improved it; for during the last week, Dr. Cushing gave me a bunch from Mr. Case's vine, which is running at random in the garden without the restraints of pruning or cultivating. The grapes are much smaller and not of as fine flavor as those produced from Dr. Cushing's vine, which has been correctly managed. On tasting those from Mr. Case's vine, I recollected that they were similar to those I met with in the Cuyahoga swamp, several years since. Not having taken notes of its character at the time Mrs. Cushing presented the fruit to our society, I cannot attempt to give anything like an accurate description of it, but will venture to assert, that I think it worthy of further trial, and that it may be a valuable addition to our increasing list of cultivated varieties. It is superior to Norton's Virginia Seedling, if we have not been imposed upon in this place by some spurious variety under that name. I should add, that though it apparently ripens earlier than the Isabella, it continues to improve with the advance of autumn, and does not attain its finest flavor till it has been acted on by the earliest frosts. Such is Mr. Case's statement.

It has been suggested that it is a large variety of the *Vitis Æstivalis*, of Michaux. From the observations of Dr. Darlington, attached to the description of that species in his Flora Cestrica, I am confirmed in the belief. Still I think it is an unusual variety of the summer grape. Dr. Cushing informs me that he shall place his vine at the disposal of a practical gardener who will as soon as possible propagate from it for supplying any demand.

Mr. Wood is cultivating in his garden, a fine variety of the Vitis labrusca, or fox grape. The berries are large, globular, slightly flattened; umber color; flavor extremely sweet and luscious; and odor profusely fragrant. It is known as the Olmsted grape. Charles Olmsted, Esq., of East Hartford, Ct., informs me that it was introduced into Rockport by himself, and that it was originally discovered by his father, growing in a swamp in Hartford county. (*a*) As it ripens several weeks earlier than the Isabella, and is perfectly hardy, I have no doubt it will be found very valuable in locations where our hybrid varieties do not generally mature. It is highly esteemed here, where the Isabella, Catawba, and Alexander are cultivated with great success.

Col. Coit, of Euclid, exhibited at our fair last week, a very similar fruit, only late in maturing, produced from a vine, found native in Liverpool, Medina county, Ohio.

Of the hundreds of seedling varieties of apples that I have examined in northern Ohio, during the last twenty years, I have not found one that I can consistently introduce into my list of *primes—that list is limited to less than one dozen varieties.*

Of seedling pears only one has as yet passed inspection, and that is a seedling raised by Col. Coit. It is fine. Our society voted it the name of the "Coit Pear."

Of seedling peaches, Mr. Cable of Newburg has exhibited two new varieties, from the old red-cheeked Melacaton. They are both delicious and beautiful. They were named by our Society, "Cable's Early Melacaton," and "Cable's Late Melacaton."

As to cherries, I would state, that I have two or three hundred thrifty seedlings from the pits of the Graffion or Yellow Spanish. Some of them have already shown fruit, and promise well, but must be tested more fully before they are introduced to the public.

Mr. Cable has raised a seedling that resembles very closely the parent stock, the Swedish, which is here a valuable variety. Very truly, yours,

Jared P. Kirtland.

Cleveland, O., Sept. 23d, 1844.

(*a*) We have frequently gathered this grape near the banks of the Shetucket, in the town of Norwich, and other fine kinds which we have never seen growing elsewhere in New England. We are confident that they would be well worthy of cultivation, and greatly improve by it.

HOME-MADE GUANO.—NO. 3.

Contents of Vaults.—Of this last enumerated substance, so nearly allied to guano in its character, it is needless to speak, of its great value as a fertilizer. Everybody knows and acknowledges it; and almost everybody turns away with ineffable disdain from any *practical* consideration of its utility. As if, what has once ministered to the gratification of the palate, and perhaps been the means of yielding the highest enjoyments which gluttony knows or can appreciate, has, by this one metamorphosis, been for ever precluded from any further use or benefits. Nature is not so prodigal of her means; her great Author, though he can create original materials with the same facility that he uses such as have already been called into existence, by his own example teaches his creatures a more rigid economy. And he effects this object in a way to elicit the admiration, and challenge the highest respect of his intelligent creatures. He has prescribed rules, Deuteronomy xxiii. 12, 14, which, although designed for a rude and semi-civilized people, embody principles of utility, whose wisdom cannot be excluded, wherever they can be conveniently applied.

Before these offensive materials are brought again to the notice of mankind, they are blended with the earth from which they have been temporarily separated; are intimately mixed with the soil; they lose all their repellent odor; the original and ultimate elements are there evolved, and form new combinations; first with the soil, and afterwards with the luxuriant vegetables that spring up in their midst; and the waving grass, the nodding corn, and even the stately forest that lifts its majestic forms far heavenward, owe their whole strength and substance to this loathed material, or its kindred elements; while to the dahlia and lily, it lends a lovelier hue; and the rose blushes deeper, and sends forth a still more delicious fragrance from the contact.

While economy and our interest lead us to investigate and provide a proper mode of appropriating this substance to our soils, a just appreciation of cleanliness, health, taste, and even decency, require a total modification of the present system in regard to its disposal. In the country, vaults are usually constructed so shallow as to be in the highest degree offensive to the double sense of sight and smell; in cities, they are almost equally offensive to smell and taste. They are sunk deep, it is true, but not beyond reach of our olfactories; while from their polluted reservoirs, the fountains which before ministered to the health and comfort of all, are now the prolific sources of disease and abhorrence. Who has not smelt (and even tasted) the loathsome mixture from the ancient pumps in the lower wards of New York, which formerly welled out water as pure as nectar? And to such an extent have some of the wells of Boston become contaminated from this source, that Dr. Jackson, an able and entirely reliable chemist, found an appreciable per centage of the contents of their vaults mixed with them! Are such things to be tolerated in this enlightened age, and must our interests, health, enjoyment, be longer prejudiced, by the grossest neglect to appropriate a small part of that invention to this subject, which is daily and successfully applied to objects of much more difficulty, and far less consequence? Every village in the Union can well afford to pay $10,000, and every city $1,000,000 each, for the invention of such a vault as would effectually secure every particle of matter deposited in it; prevent the escape of any noxious effluvia; and, finally, allow of a ready and economical removal. Let some of our inventive and scientific minds be applied to this subject, and this great desideratum will not remain long unachieved. The State Agricultural Society of New York, the American Institute, and every State Agricultural Society in the Union ought to offer a reward beyond all others from $200 to $1000 for the successful accomplishment of this much desired object.(*a*)

Vaults should be differently constituted to suit different situations. In all cases, they should be perfectly tight; in some they may be made of mason work, in others of strong, durable plank; and when they cannot be sunk below the surface, as is sometimes the case in cities, they may be made of some of the mixed metals, properly guarded against corrosion, such as neutralized zinc, coated sheet or boiler iron, &c., which might be easily removed with their entire contents. Until some more convenient or economical, or less bulky combination is suggested; turf, peat, tan-bark, saw-dust, charcoal, or sulphate of lime may be added to the contents of the vault, from time to time, to combine with and disinfect the volatile ingredients, prevent their escape, and hold them for future use. Quick lime (carbonate of lime) is a wasteful application, as it expels the ammonia. It is useful only to purify and sweeten the air.

When easily accessible (as they ought always to be), these contents, thus neutralized and rendered as inoffensive as ashes or turf, should be frequently removed and mixed with other compost, or, what is better, at once spread over the soil and mixed through it. These materials possess all the constituents of Peruvian guano, and in a form nearly as concentrated; and if effectually husbanded and added to the soil, would increase the crops of the United States annually, from $50,000,000 to $100,000,000, and save incalculably in the health and comfort of the inhabitants.

It is hardly necessary to fortify these suggestions by any authority, yet it may be well enough to say, that Mr. Haywood, a gentleman of great experience and ingenuity, has made an able and extended report on this subject recently in England, in which he affirms, that the excrements of one hundred of the rigidly dieted inmates of the Lunatic Asylum at Derby, will keep one hundred acres of land on the four course system of rotation in the highest state of fertility.

The use of the above manures would save immensely in the labor of exterminating weeds which are produced from compost made up of barn manures, and the vegetable alluvial deposits of road drains and ditches, all of which are highly charged with obnoxious weeds and grasses, the prevention of whose growth and maturity constitute so large a share of the labor of the farmer in successfully rearing his crops. Travellers allege, that the considerate and careful Chinese never use other than the last above-mentioned fertilizer for their tillage crops, and by a rigid adherence to this practice for years, they save themselves the double labor, of first planting noxious vegetables, and then, with an infinite degree of pains, eradicating them. This system, long persisted in, has resulted in the removal of every species of vegetation, except the sole one which the husbandman has

profusely committed to the soil. A similar system might be advantageously introduced on a portion of the cultivated land, in this country, even with our comparatively sparse population, not only with the above manures, but with all other artificial ones, such as peat and its mixtures of fish or other purely animal matters, ashes, lime, plaster, salt, the nitrates, sulphates, &c., with a vast advantage both in the saving of labor and the increase of crops.

Buffalo, January, 1845. R. L. A.

(*a*) We will make a simple suggestion to the public without charge. Insert under each aperture of a privy, drawers made of wood, iron, or metal, two feet wide, two feet deep, and any required length, with handles attached at each end, so that they can be as easily drawn out and handled as those of a desk. Put into these drawers peat, mixed with a little plaster of Paris, or charcoal dust mixed with plaster, to the depth of six inches or a foot; or, as the fæces accumulate in them, add a pound or so of copperas dissolved in a few quarts of urine, to every fifty pounds of fæces. Thus arranged, not the slightest unpleasant smell would arise from the privy; and every week or fortnight, carts with tight boxes on them, should call at the houses, and these drawers be taken out and emptied into them. In this way the yards would be purified of a shocking nuisance, and vast quantities of poudrette would be weekly manufactured, for which any company could well afford to pay the city of New York $100,000 per annum.

In building a large hotel at Morristown last year, Mr. Gibbons directed a long vault of stone to be laid in water cement, to be constructed under the row of privies, gradually declining it one foot to the end of the row. Into this vault charcoal dust and plaster is thrown every little while; these mix with the fæces, and all settle to the lower end, whence the poudrette is taken in carts and applied to the land. Such a vault ought to come up one or two feet above the surface of the ground, and not be over two feet below it, so that the poudrette thus made could be easily loaded into carts.

Oil of vitriol diluted in water, at the rate of five lbs. to a barrel, poured into a vault of moderate size, will completely disinfect it. When drawers are placed to catch the fæces, as directed above, no other liquid save urine should be emptied into them.

Boussingault estimates the solid and liquid excrement of a man at 618 lbs. per annum, containing 18 lbs. of nitrogen; a quantity sufficient to grow 886 lbs. of wheat.

THE PLEASURES OF HORTICULTURE.

In a very interesting book on the *Art of Living*, by Dr. Henry Duhring, published in London in 1843, the author introduces the subject thus:

"Of all the various branches of useful knowledge which it can be the object of our endeavors to possess and to promote, none appears to me of greater importance to every human being, than that knowledge which teaches us in what manner, and by what means, we may hope to render our existence as pleasant or happy as it possibly can be. Taking as a principle, *that the study of Nature, and the practice of Horticulture, constitute the surest foundation of man's happiness.*"

The Dr. then proceeds to point out how this is, and it will not be uninteresting or unprofitable to hear what he says. Listen, then, for we are sure you will be pleased. "As, in order to secure health and cheerfulness, it is not only a condition of our nature that we must labor, but also that we labor in such a way as to produce something useful or agreeable; whatever lives, grows, and undergoes changes before our eyes, if produced by our own labor, must be more productive of enjoyment to us than mere brute matter. Hence a man who plants, prunes, and trains trees, strikes plants from cuttings, or sows a grass-plot in his garden, lays, as it has been well observed by Mr. Loudon, a more certain foundation of enjoyment than he who builds a wall, shoots at a mark, or plays at bowls. The pleasure which is enjoyed from the contemplation of what we have planned and executed ourselves, is also infinitely greater than the pleasure which can be experienced by seeing the finest works belonging to, and planned by, another. For our own work is endeared to us by the difficulties we have met with and conquered at every step; and every such step has its history, and recals a train of interesting recollections connected with it. The love of the beauty and sublimity of nature is also an inherent principle in the human soul, though it may not be equally developed, or of the same strength, in every individual. The good and the wise of all ages have enjoyed their purest and most innocent pleasures in a garden, from the beginning of time, when the father of mankind was created, until, in the fulness of years, He, who often delighted in a garden, was at last buried in it."

Who, after reading this, will not be ready to admit, that the science of Horticulture has the strongest claims to our regard, and should be fostered and encouraged to the greatest possible extent? Who does not feel, that of all pleasures, that to be derived from a well regulated garden is infinitely more delightful than any other? If there be those who are insensible to every such emotion, it is to be hoped they will be regarded as exceptions to the general rule, for we hold it to be an admitted truth, that *most* men are attached to horticultural pursuits, and contemplate with admiration, the inimitable work of God.

As a recreation, gardening has ranked among its votaries the most renowned philosophers and illustrious princes, and has ever been the favorite amusement of the most eminent and worthy of mankind. It is an enjoyment for which no man can be too high or too low; a pleasure to the great, a care to the humble. The interest which flowers have excited in the breast of man has never been restrained to any particular class of society, or limited to one particular quarter of the globe. Over the whole world we find them liberally distributed, as mental medicaments, to impart cheerfulness to the earth, and to furnish agreeable sensations to its inhabitants. The savage of the forest, in the joy of his heart, binds his brow with the native flowers of his romantic haunts, while a taste for their cultivation increases in every country, in proportion to its advancement in civilisation and refinement. A garden is powerfully attractive in binding men to their homes, therefore, every encouragement given to promote a taste for ornamental gardening secures an additional guarantee for domestic comfort, and the unity, morality, and happiness of the

social circle. As a recreation, it also contributes materially to health, advances intellectual improvement, softens the manners, and subdues the tempers of men.

Flowers are of all embellishments the most beautiful, and of all the sentient tribes, man alone seems capable of deriving enjoyment from them. From infancy we love them, and as this attachment increases with our years, it becomes a fertile source of comfort and gratification in our declining days. The child no sooner walks, than its first employment is to plant a flower, removing it ten times in a day to wherever the sun appears to shine most favorably. The schoolboy in the care of his little plot of ground is relieved from his studies, and loses all the anxious thoughts and cares of the tasks in which he has been engaged, or the home which he may have left. In manhood, our attention is generally demanded by more active duties; still a few hours' employment in gardening affords a delightful recreation, and as age obliges us to retire from public life, the attachment to flowers returns to soothe the period of our declining years.

In the growth of flowers, from the first tender shoots which rise from the earth, through all the changes which they undergo to the period of their utmost perfection, man beholds the wonderful process of creative wisdom and power. He views the bud as it swells, looks into the expanded blossom, and delights in its rich tints and fragrant odors; but, above all, he feels a charm in contemplating the precise conformation and mutual adaptation of its organs, and the undeviating regularity with which the various changes are effected; before which, all the combined ingenuity of man dwindles into nothingness. For, while the simple cultivation and management of flowers is productive of much innocent pleasure, how immensely is that pleasure enhanced when science is applied as its auxiliary! The cultivator of flowers, on whom the light of science has just dawned, feels like one emerging into a new sphere of existence. A multitude of subjects previously unheeded, present themselves to his consideration, which, as he proceeds to contemplate them, diverge into successive series of interesting associations, and awaken in his mind emotions of pleasure and gratification of which he was previously altogether unconscious. The development of a leaf on the most familiar tree, offers a field for his observations, for he learns that it is destined to bring forth, nourish, and mature a germ, which is capable of producing a distinct tree, that in process of time would equal or even exceed in size the parent that forced it into existence. He observes the leaves wither and fall in the autumn without regret, informed that they have duly fulfilled their important functions, and that were they capable of remaining, they would only be productive of harm by exciting the latent buds into premature activity, thus causing them to perish by the inclemency and frost of the coming season.

On such a subject, however delightful in itself, it is perhaps after all unnecessary to expatiate, for the *pleasures* of gardening are scarcely communicable, nor are they derivable from elaborate treatises. They must be sought after to be duly appreciated, and once tasted, the mind will never become satiated; but, like the bee, will rove from flower to flower in search of delicious and nutritive sweets, extracting fresh stores of wisdom and pleasure from each successive object, till, finally, it succeeds in amassing that which most truly constitutes man's wealth—a fund of knowledge of his Creator's perfect works. W. W. V.

Flushing, L. I., Dec. 2, 1844.

SHEEP HUSBANDRY IN SPAIN.—No. 4.

The season for sheep-shearing, in Spain, like the harvest and the vintage in corn and wine countries, is a time of great festivity and rejoicing, both to the proprietor and the workmen. A multitude of shearers, washers, and other attendants, are fed upon the flesh of the culled sheep, and it would seem that the slaughter occasioned by this season of feasting would be sufficient to consume the whole flock.

The operation of shearing commences on the first of May, provided the weather be fair; for if the wool be not quite dry, the fleeces, which are closely piled upon one another as soon as they are taken off, would ferment and rot. It is for this reason that the business is performed in large spacious buildings called "Esquileos," which are usually so arranged as to receive entire flocks of twenty, forty, and even sixty thousand sheep; and besides, the constitutions of the ewes are such, that if they were exposed, immediately after shearing, to the air of a bleak, stormy night, they would all perish.

A certain number of sheep are led into the great shelter-house, built in the form of a parallelogram, four or five hundred feet long and one hundred wide, where they remain during the day. As many sheep as it is judged can be despatched by the shearmen the next day, are driven into a long narrow passage, called "Sudadero," or sweating-place, where they remain all night, crowded as closely as possible together, in order that they may profusely sweat, which is to soften the wool for the shears, and, as the shepherds say, "to oil their edges." By degrees, the next morning, the sheep are led into the spacious shearing-room, which joins the sweating-place. As fast as they are sheared, the shepherd carries them off to be marked with tar, which usually consists of the first letter of the name of the proprietor, and each subdivision is denoted by the part of the sheep on which this letter is placed; and as this operation is necessarily performed upon one at a time, it gives a fair opportunity to cull out for the butchery all the sheep of the flock which have lost their teeth.

A man can shear twelve ewes in a day, or eight rams. The fleeces of three of the latter often weigh in the dirt or yolk, twenty-five pounds, which is equivalent to those of four wethers, or five ewes. The reason of the difference in the number of sheep sheared in a day is, not only because the rams have larger bodies, are stronger, and have more wool, but the shearmen dare not tie their feet as they do those of the unresisting ewes. Experience has taught them, that a bold, rebellious ram would struggle even to suffocation thus confined under the shears; consequently, they gently lay him down, stroke his belly, and actually beguile him out of his fleece.

The sheep that have been shorn are allowed to go to the fields, if the weather be fine, in order to feed during the day, and in the evening they return to the yard in front of the shearing-house, to pass the night, and if the weather be cold or cloudy they are sheltered within. Thus they are brought, by degrees, to endure the open air, and their first days' journey, from the esquileos to the mountains, are short, where

we will leave them, having followed them through their annual peregrinations, and go back to their wool. D'JAY BROWNE.

New York, March 12, 1845.

VIRGINIA LANDS.

IN compliance with my promise, I will attempt to give you a limited description of that portion of Virginia which I went to see for the purpose of settling. I first went to Washington, and having letters to the Hon. S. B. Strong, M. C. of this district, and the Hon. M. B. Leonard, of your city, I stated to them that I wished to visit Eastern Virginia, when they introduced me to the Hon. Messrs. Bagly and Atkinson, of Virginia. These gentlemen gave me some information in relation to the land in their districts, and letters to some of their friends residing in the counties I wished to visit.

From Washington I went by the railroad to Richmond, and from Richmond down James river by steamboat, stopping at Grove wharf, the steamboat landing for Williamsburg. The north bank of the James river is perhaps one of the finest wheat districts in the United States; the Shirley estate, nearly opposite City Point, averages about 30 bushels of wheat per acre. The Brandon estates make 10,000 bushels each per year. Westover, and many other estates, in the same proportion. I rode over portions of James City, York, and Warwick counties. The James river lands are generally of a stiff clay, but grow lighter and more loamy as they recede from the river, until you come on to the ridge, which divides the small streams that empty it into York and James rivers—thence to the York river they change very little. The York river lands are not as stiff as those on the James river until you get below Yorktown, where the land is lower, flatter, and stiffer. The higher lands are considerably broken with deep ravines, particularly on the rivers; and from them the marls, which underlay the whole country, and with which I supplied you samples, are dug to be applied to the soil. This marl is frequently found at the surface in the sides of the ravines. In nearly all those ravines there are small streams of water issuing out, and often spreading over the whole bottom, which is the chief cause of the fall sickness, such as fever and ague, and bilious fever, which are no worse than at the boasted West, if as bad. These can be drained at a small expense.

Nearly three-fourths of the land from the Chickahominy to Hampton is in forest. The benefit of marling here has been surprising, especially on the farm of Mr. Nelson (to whom I had a letter of introduction), and at Yorktown, on the battle ground, which I have not time to describe, otherwise than to say that the plow and time have obliterated nearly all the evidences of the American parallels, while the British redoubts remain in a good state of preservation. Mr. N. politely showed the farms in his neighborhood. I saw a very striking effect of marl on these also. On one of these a field had been marled, leaving by accident a strip unmarled. The difference was perceptible as far as the grain could be seen.

The farm of Mr. Wynne, on James river, at the Grove wharf, is a good illustration of the effect of marling and clovering. Having a letter to him, and being kindly invited to partake of his generous hospitality for several days, I had during my rambles there a good opportunity of examining his farm and mode of cultivation. He is a very intelligent and gentlemanly man, and a very good practical farmer; and any one visiting that part of Virginia for a location, would do well to call and see him. People from all sections of Virginia daily passing, gives him an ample opportunity to become extensively acquainted in his State. He told me that he bought his farm six years ago, and it was thought to be very poor. He has 1,000 acres of land. The house is one of the finest specimens of the old Virginia style I saw in my rambles. It is 74 by 44 feet, two stories high, the stories 15 feet between joints, with wainscotted ceiling. It is built of brick, and more than a hundred years old, and still in a fine state of preservation. He said that when he bought the farm it would not produce more than 300 bushels of wheat a year, and by marling, clovering, and other improvement, his last year's crop reached 1,600 bushels, 80 acres averaging 16 bushels per acre. If he carries out his present system of improvement, he can double this yield in six years more. He cultivates on the three field system; corn, wheat, clover; sowing wheat after corn, and some on a clover ley, and then putting corn right after wheat. If land will improve under this system I think it must be good. Such a continued cropping might be exchanged for one like this with profit—1st, corn, 2d, oats, 3d, clover, 4th, wheat, 5th, 6th, and 7th, if you please, with clover and timothy, and keep more stock, and keep them better, for the cattle in Virginia are miserable enough. Thus they would make more manure, and consequently raise more grain; and the more manure there is applied, the more marl the land will bear. Southern Virginia owes an inestimable debt of gratitude to Mr. Ruffin for his work on calcareous manures; for marls were rarely applied, and scarcely known as a manure until after the appearance of his work. Mr. Wynne's farm is but an illustration of many others, and he assured me that he knew many farms which produced 10 bushels of wheat now, where they did one ten years ago.

Farms with improvements on them can be bought from $3 to $20 per acre through the whole peninsula, with perhaps few exceptions about Hampton and the lower part of York county; some few very rich farms are held higher: but I saw good farms off the rivers, and some on, that can be bought for $5, $8, and $10 per acre. Here, it is not more than 15 miles from one river to the other. At any place, oysters, fish, and fowl abound, of the finest quality. The south side of James river is much the same kind of land, except that it is sandier and thinner, and there is much heavy timber in Surrey, Isle of Wight, Nansemond, Princess Anne, the surface flat, and much of the two last slashy. There is some good land on the Nansemond and Elizabeth rivers. On the Nansemond and about Hampton, large quantities of melons, and potatoes, and other vegetables, are grown for the northern markets. The farms here are smaller and lands higher than the others I have named. There are tracts to be found on the rivers, which an enterprising man can pay for in the wood in a few years, by cutting wood and timber. The lands between the York and Rappahannock rivers, and so on through up to the Potomac, differ little in quality and price with the lands I have described. Gloucester county is considered one of the best in lower Virginia.

Want of space compels me to cut my epistle short.

I might say much more in relation to means of improvement, and go more minutely into the character of some lands that I have merely alluded to; but I think from my own observation, reading and acquaintance with men who have travelled over those portions of the Union which I have not, that Eastern Virginia presents greater inducements to Northern men to emigrate there than any portion of the United States, and I should recommend any one wishing to change his location to at least look at it. I fear I shall tire your patience by my hurried epistle.

G. P. Lewis.

Huntington, L. I., Feb. 28, 1845.

CULTURE OF TOBACCO.

The growing of tobacco is becoming an important business in the valley of the Connecticut, and yields a better return to the farmer on rich land, than almost any other crop. This crop was greatly increased the last season, and I think I do not exaggerate, when I estimate the amount grown in the towns bordering on the Connecticut, between Hartford and Northampton, at from 1,500 to 2,000 tons. The price, the last season, for large growth, and in good condition, was eight cents per pound. We have two varieties—the narrow, and the broad leaf. The latter is the most productive, and sells in market much more readily than the former.

Soil Preparation and Sowing.—We select for our tobacco plants a rich, moist (but not wet) spot, and sow the seed as early in April as the ground can be prepared for it. Our beds are well manured, made mellow and fine, and the seed should be sowed at the rate of one table-spoonful to the square rod, before the earth gets dry; after this it is raked so that the dirt may stick close to the seed. It should not be covered, but let a man go on and tread the surface of the bed as hard as possible. The bed must be kept free from weeds. The plants should get leaves two or three inches long before being transplanted. They grow faster in the beds at first than in the field, and are less exposed to the cut worm.

Transplanting.—We commence transplanting the fore part of June, and often set out the plants as late as the 20th or 25th. The ground should be made mellow and level. The broad leaf plants should be set in the rows 2½ feet distant from each other, and the rows be 3 feet 4 inches apart. If it rains at the time of setting, we take the advantage of it, and get out as many as possible. If not, we make the hills, and pour in to each about half a pint of water, and follow immediately after and set the plants. They will live as well set in this way in sunshine as in the rain. The ground should be looked over two or three times afterward, and re-set the vacant plants.

After Culture.—As soon as the plants are well growing, we go through with the cultivator, and again fill up the vacant places. The crop should be hoed three or four times without hilling the plants. When the green worms appear, they must be watched and killed, or they will in a great measure destroy the crop.

Topping.—Commence topping the tobacco when it is in the bloom, and manage to top as much as possible the first time going over, that it may all ripen at once. Leave about twenty leaves to the stalk, and make the field as even on the surface as possible. If you have late plants in consequence of re-setting, break them low, and they will grow faster and ripen sooner for it. The suckers should all be broken off and the plants kept clear of weeds till they are cut.

Cutting and Curing.—We should never cut more than can be hung the same day and next morning, while the dew is on. After cutting, it should lie and wilt on one side, then turn it and wilt the other; then throw it into heaps of six or eight plants each, and let it lie till carted to the sheds, where it is hung with cotton twine on poles twelve feet long, and about twenty plants on each side. It must hang till the stem of the leaf is thoroughly cured to the stalk. It is then taken down in a damp day (to prevent the leaves from crumbling), and stripped and tied in three small hands, keeping the broken and poor leaves by themselves. It is then packed, and pressed hard with the hands in a double row, with the butts out, and if not sufficiently cured in a few days, it must be shaken up and re-packed, to prevent heating. When fit for market it is bought in large quantities and pressed in boxes containing about four hundred pounds each, and sent to the seaports and shipped to foreign countries.

Value of Poudrette—I used one barrel of poudrette from the Lodi Manufactory in your city, sold by Mr. Dey, on my plants while on the bed, leaving a small piece without it. The effect was astonishing. The plants at the time of setting were twice as large where the poudrette was used as where it was not, and they were not as much attacked by the worms, which is an important consideration. I set the last season about two and a half acres in tobacco, which produced 5,100 lbs. I sold it for $408. P.

South Hadley Falls, Mass., March 3, 1845.

—

We had the pleasure of visiting our intelligent correspondent above, last year, and saw his tobacco crop growing. We recently met with an enterprising farmer from Windsor, who estimated the crop grown the past year in the valley of the Connecticut and its vicinity, at 5,000,000 lbs. He said he could get from 12 to 16 cents per lb. for his; and although it was used for a different purpose, he did not know why it was not as good as the Cuba, which sells from 25 to 35 cents per lb. Prime tobacco-land rents high at present in the valley of the Connecticut—from $25 to $50 per acre per annum. A rich, friable loamy clay is considered the best soil for this crop, which must be highly manured and deep and well worked. We think it ought to be subsoil-plowed, and that guano as well as poudrette would be an excellent manure for it. The latter is the most lasting, and is said to keep off the fly. Coarse barn-yard manure makes too rank a growth of stalk and leaf, and injures the quality of the tobacco; whereas, poudrette, guano, and other fine and highly concentrated manures, would add to its aromatic flavor. We should be glad to see carefully conducted experiments made the present season with these manures, on the tobacco crop. The different kinds might be tried side by side on separate rows, with a view of testing which was best for that particular locality and kind of soil. We should be pleased to learn whether the culture of the finest Cuba tobacco has ever been attempted in New England. This is frequently worth from 50 cents to $1 per lb.

STABLES OF MR. GIBBONS.

THE most complete stables which we have seen in the United States, or indeed anywhere else, when we take into consideration their cost, comfort, and convenience, are in Madison, New Jersey, at the Forest —the beautiful estate of William Gibbons, Esq.; plans of which he has kindly permitted us to take to embellish the American edition of the Stable Economy.

The stables stand upon the edge of a piece of broad table-land, gently declining to the south. The foundation, and walls of the lower story, are of stone; the walls of the upper stories are of brick. The whole building is strong and massive, and finished in the most thorough manner

ELEVATION.—FIG. 29.

Fig. 29 is a perspective view of the elevation of the stables on the north or upper side. They are two stories high on the front, and three stories on the lower or south side. The building is 90 feet long, and 60 wide, and 24 high on this front. The architecture is neat and appropriate. There is a good Macadam carriage-way in front, on the north side; *a* and *b* are large windows, alongside of which the hay-carts drive to unload.

Fig. 30 is the basement story, laid up of thick stone walls.

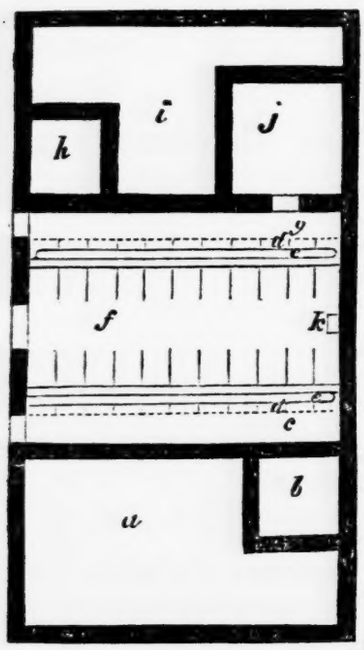
a, Solid earth. *b*, *h*, Cisterns 12 feet square, and 7 deep.

c, *g*, Passage-ways from which the cattle are fed under the water-troughs, *e*, *e*.

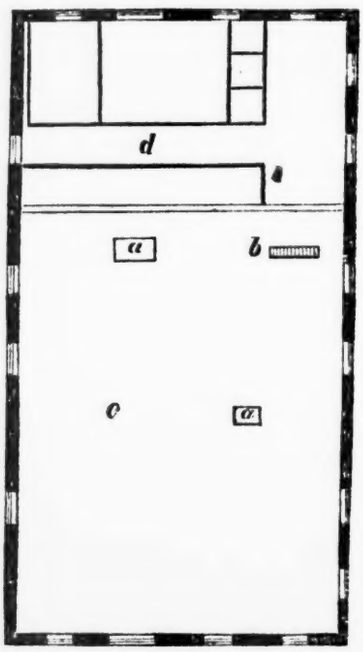
d, *d*, Racks for receiving hay from above.

e, *e*, Water-troughs running along the whole front of the cattle-stalls.

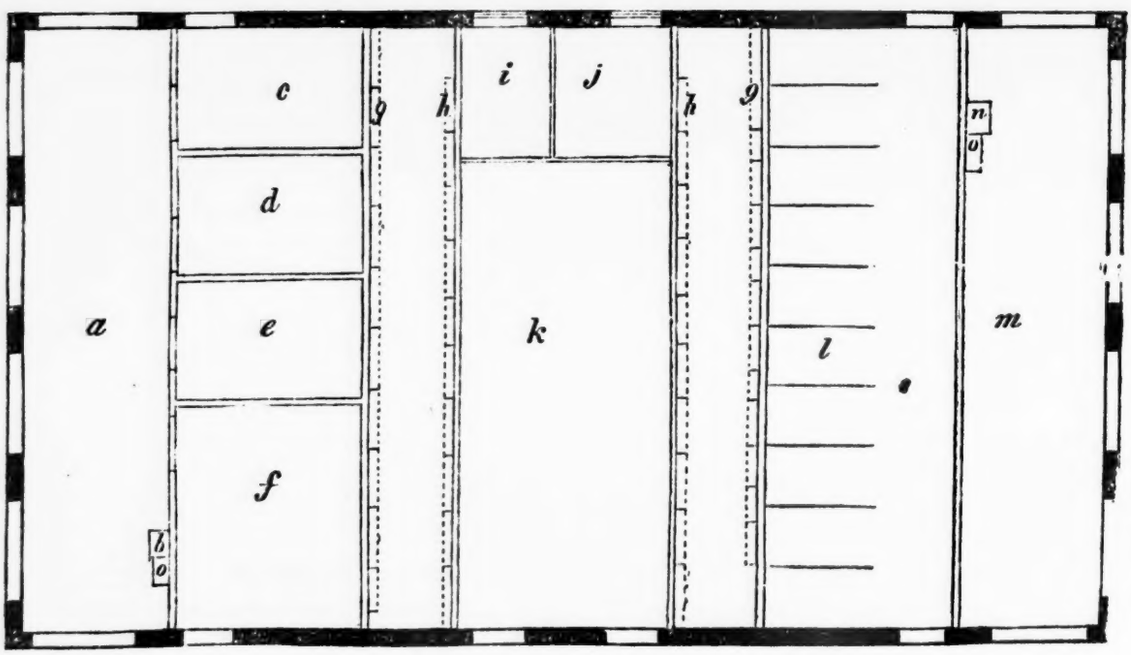
f, Passage-way for the cattle, with rows of open stalls on each side, 4 feet 3 inches wide.



BASEMENT STORY.—FIG. 30.



THIRD STORY OR LOFT.—FIG. 31



SECOND STORY.—FIG. 32.

i, Solid earth.

j, Cellar for roots, 16 feet square.

k, Pump which draws water from the cistern, and delivers it into the troughs, *e*, *e*.

Fig. 31 is the third story or loft; *a*, *a*, openings in the floor to put down hay for the stock.

b, Stairway.

c, Hay-loft.

d, Granary, partitioned into separate divisions, as designated by the line, for different kinds of grain.

Fig. 32 is the second story, engraved on a larger scale than Figs. 30 and 31. It is on a level with the broad table-land, north side, in front of Fig. 29.

a, *m*, Sheds 50 feet long and 13 feet wide. The loft or third story, Fig. 31, forms their ceiling or roof, by projecting over them at each end. The open spaces along the outside line are arches; the black spots are brick walls to support the ends of the upper story. These sheds are very convenient for taking out the horses to dress, and for other purposes.

b, *n*, Pumps.

c, *d*, *e*, *f*, Box-stalls for horses, 14 feet 6 inches deep, by 9 feet 8 inches, 9 feet 7 inches, 9 feet 6 inches, and 19 feet wide.

g, *g*, Rows of feed-boxes for the horses.

h, *h*, Rows of openings through which to put down hay into the racks for the cattle in the basement story (see *d*, *d*, in Fig. 30.)

i, Farmer's room for utensils, 11 by 7 feet 6 inches.

j, Harness-room, 11 by 12 feet 6 inches. *k*, Coach-room.

l, Horse-stalls 4 feet 9 inches, by 14 feet 6 inches.

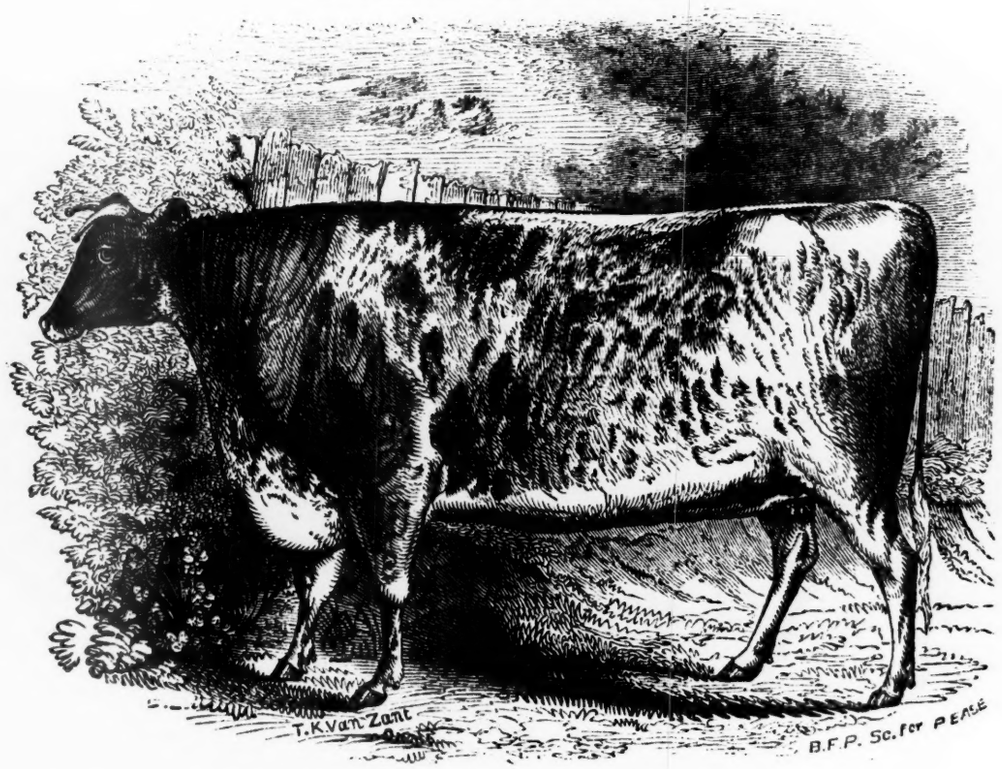
o, *o*, Water-troughs.

Mr. Gibbons has a very fine stud of thorough-bred horses, among which are the famous Bonnets-of-Blue, Fashion, and Mariner. His Durham cattle are superb, and all his farm arrangements and farm buildings are in excellent style.

For a full description of Mr. Gibbons' farm, see Vol. 3, page 130, of the Agriculturist.

We have been obligingly permitted to use the above cuts, and copy the article illustrating them, from the Stable Economy, just published, by Messrs. Appleton & Co., of this city, and edited by ourselves.

STOCK OF MR. PRENTICE.



DURHAM HEIFER, ESTERVILLE.—FIG. 33.

ESTERVILLE is the property of E. P. Prentice, Esq., of Mount Hope, near Albany, New York. She was got in England, by Daniel O'Connell (3557); dam, Esterville (imported by Mr. Prentice), by Sir Alfred (6469); g. d., Amethyst, by Prince of Northumberland (4826); g. g. d. Amazon, by Crusader, (934); g. g. g. d. Amazon, by Sultan (1485); g. g. g. g. d. Belona, by Mars (411); g. g. g. g. g. d. Rolla, by North Star (458); own brother to Comet, sold for £1000. Sir Alfred was sold, in 1840, to the King of the French.

Esterville took the second premium in her class (Nell, another heifer belonging to Mr. P., taking the first), at the State Agricultural Society show at Poughkeepsie, last fall, and was greatly admired by all good judges present. The portrait above is a truthful likeness of her, and is a fair sample of Mr. Prentice's herd. This now consists of about fifty head, and for choice breeding, superior dairy qualities, and all that constitutes fine improved stock, it is not excelled by any herd in this country. As an instance of the value of Mr. P.'s cows, we are assured that several have given from 26 to 31 quarts of milk per day, and made corresponding large quantities of butter per week. Such animals cannot be too highly valued. We have often had the gratifica-

tion of personally inspecting his herd, and speak of it from our own knowledge. For more particular descriptions we refer to our first volume.

It will be seen by an advertisement in our present No., that the ENTIRE HERD is offered for sale, on Wednesday the 25th of June next. Mr. Prentice is a gentleman of high honor and the strictest integrity, and whatever he says in his advertisement may be relied upon. The sale will afford such an opportunity for stock-breeders to possess themselves of good animals, at moderate prices, as has never yet been presented in the United States; and we earnestly entreat all who have any desire for the improvement of their cattle, to be there and make a bid. As we design being present, we respectfully offer our services to such of our friends as may find it inconvenient to attend to bid for themselves. Any instructions they may please to give as to choice of animals, and prices at which to purchase, they may depend upon being faithfully executed.

DIFFERENT QUALITIES OF HONEY.

AMONG all the treatises on the subject of bees that have come under my notice, I do not recollect one in which the different varieties and qualities of honey have been particularly noticed and described. It is a matter of surprise to me, as honey is obtained from so great a variety of flowers, possessing in themselves properties so various, that if there be any difference, there should not be as many kinds as there are plants producing it. But this does not seem to be the fact. In all that I have yet seen made at the north, I have been unable to discover but four distinct kinds; though some of them differ considerably in quality in different seasons.

1st Quality.—The first honey collected—and I think the richest and most valuable sort, is obtained in April and May, in this latitude (42°), principally from the blossoms of fruit and forest trees. It is of an amber color—very heavy—being nearly of the consistence of tar, and possesses a peculiar aromatic flavor. The comb in which it is deposited is of a light straw color, and is thicker, that is, there is a greater proportion of wax than in the other kinds. It is collected in comparatively small quantities, or it is deposited in the lower apartments of the hive, so that but little of it ever gets to market in a pure virgin state. We once, however, had a globe containing nearly 20 lbs. filled with it (taken of course from one hive), while residing in Connecticut.

2d Quality.—The next variety to be noticed, is collected at the same season of the year as the first mentioned, and is deposited in the same kind of comb, has a similar though rather higher flavor, and is not only as thick, but nearly as black as tar; but it is obtained in still smaller quantities than the first.

3d Quality.—The next in order is taken in June and July. This is always of less specific gravity than the two former, though it differs more in this respect than any other kind in different seasons. Sometimes it is so thin and watery as to ferment and become sour when it runs from the cells; and even in such cells as are uncapped. It is destitute of the rich flavor of the early made kinds, but looks better, being almost colorless, and is in thinner, whiter comb, and on account of its fine appearance brings a better price in market. It is indeed preferred by some for its taste, while others consider it the most inferior of all. This is the kind so well known as white-clover honey, and is doubtless principally obtained from that plant.

4th Quality.—The next and last to be described, is made later in the season from buckwheat. Of this there is no doubt, and one who keeps bees need not be told when the fields of this grain are in blossom, though he be totally blind, provided his olfactories are unimpaired, on going within a few rods of his apiary. The strong odor that is emitted from the hives reveals the fact to a certainty, though there be none growing within the distance of a mile. The honey, however, loses this rank smell in a great degree in a few weeks, and is then preferred by many to the white-clover. Its color is a dark brown; but the comb containing it is the whitest of all, and is so very thin, that in some cases where the cells are deep, a piece containing a pound of honey, would not I think, weigh more than one fourth of an ounce, that is, not more than one sixty-fourth of the whole is waste. This variety is generally heavier than the white-clover, but less so than that from fruit trees.

The different kinds of honey are seldom if ever mixed at all in the cells; nor are the cells filled indiscriminately in the sheet; but each kind is by itself, so that a sheet of comb containing two sorts, can be divided with a knife so as to separate the kinds.

In order to obtain all the varieties pure in boxes, the hives should be in good condition in early spring. They should not be much exhausted of honey, and well stocked with bees. In order to keep them in this condition, it is better to remove them to some warm out-building, or dry cellar, where they will not experience the great changes of temperature to which they are exposed if left in the open air in winter. If well managed, the avails of the apiary are a profitable item of farm produce. H. CARPENTER.

Pouglkeepsie, Jan. 16, 1845.

A CORN PLOW.

IN passing through Butler County, Ohio, on my way to Kentucky, in the month of August last, I called on Dr. Keever, an extensive farmer as well as skilful physician and surgeon, with a very extensive practice. I asked him to write out the result of some of his farming operations for your paper, which he promised he would; but as they have not appeared, I suppose he has not been able to spare the time from the multiplicity of his cares to do so. I saw an implement of husbandry at his farm of too much importance to remain unnoticed, as it ought to be in use wherever the corn crop is extensively cultivated. It was a plow with two shares, with a pole connected to the frames in the centre, like that of a wagon, worked with two horses. The shares were so constructed that they could be shifted either way, thus throwing the dirt to or from the corn, at pleasure, or both sides of the row at the same time. It did the work to great perfection, and twice as fast as a single plow would have done it. I hope Dr. K. will find time to send you a drawing of it, and give a description of some other curious inventions, as well as of that of his farming in general. He is an intelligent and ingenious man, and ought to be willing to let others share with him, inasmuch as nature has done more for him than the great majority of us less gifted.

A TRAVELLER.

Agriculture in Scotland.—No. 6.

Electricity—It has been customary to allege, that the farmers of all countries, as a class, are the very slowest in seizing upon new methods, and the most reluctant to leave the cherished ways of their forefathers. That there is much truth in this, as to our own country, I must admit; for even now rises up before me a long array of crooked fences (*a*) of stones seamed by the plows and harrows of successive generations; of outlandish and awkward implements; of barn yards on the summits of hills; of razor-backed pigs; of skeleton cows, and a thousand other things which your imagination will readily suggest. These have been a reproach to us, and richly have we deserved it. But I trust that better days are commencing, even in our worst districts.

On this side of the water, the farmers are fast losing sight of their *grandfathers* even, and never think of quoting more remote ancestry as a precedent. They are seriously contemplating the *total abolition of fences* (*b*), and intend to have the whole surface of the island one great net-work of drains. Not content with collecting every ounce and every drop of manure here, they are scouring sea and land for additional supplies.

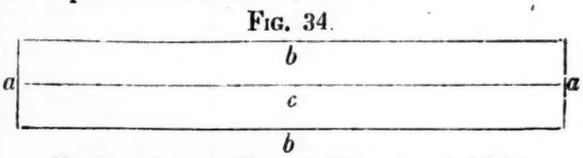
At their agricultural shows, the very earth shakes under the ponderous beasts that appear, while the clod-crushers, the grubbers, and the subsoil plows, bristling with arms, and hooks, and teeth, fill the beholder with amazement and awe.

A large proportion of the farmers, in addition to the fatting of these huge animals, and the management of these formidable implements, are turning their attention to scientific knowledge, and already have derived incalculable benefits; the very boys are becoming learned on the subject, and many a little fellow of twelve or fourteen, would drive a whole regiment of inveterate *ancients* back to their inaccessible fastnesses among the usages of antiquity. But there are still others, who having fairly cut away from their old prejudices, are shooting on in advance at a prodigious rate, and hanging out beacons for us that we may follow their adventurous course. Some of them are making truly astonishing developments, which bid fair, according to their enthusiastic visions, to revolutionize our whole system. Among the recent discoveries is one which I deem it proper to touch upon, as I wish to keep you fully informed as to the more important movements of the day.

Application of Electricity to Vegetation.—It seems that we have all been in the dark on the subject of electricity, and have never had more than a glimpse of the sun which is now to illumine us. It is true that some isolated and trifling attempts to bring it into the service of agriculture have been made, but not of a nature to promise much practical benefit. I notice that Mr. Ross, some time since, presented to the Farmers' Club of New York, a potato grown under the influence of an electrical current; but this potato, however superior in size to others grown alongside of it without the application of electricity, was solitary and alone, and would not be thought much of by the gentlemen who have now taken the matter up here.

Their mode of operation is to measure off an oblong space of ground, and running through the middle *exactly north and south*, to suspend an iron wire upon posts, so as to hang about 12 feet from the surface; this communicates at each end with a wire laid under the ground along each side of the plot, at the depth of 2 or 3 inches, thus—

FIG. 34.



Explanation of Plan of Experimental Plot.

a, a, Wire buried 2 or 3 inches deep, and each piece 12 yards long.

b, b, Wire buried 2 or 3 inches deep, joined to the ends of *a, a,* and 55 yards long each. These should run exactly north and south.

c, Line of wire 55 yards long, running north and south, equidistant from *b, b.* This is suspended on the ends of two posts, 12 feet from the surface of the ground, and runs down them communicating with the buried wire *a, a.*

The whole cost of this here is 6*s.* ($1.40). As the area increases the cost rapidly diminishes.

Without entering into the scientific reasoning employed, it is sufficient at present to say that these wires, acting in harmonious concert, create a constant current of electricity, and always have a stock on hand for the crops growing on the favored plot. It is said that the points of green growing vegetables are peculiarly attractive to this subtle fluid. As soon, therefore, as the young shoots emerge from the earth, they lose no time in pointing at the wires, the electricity forthwith shoots down, and the plants shooting up, they grow tall, become excessively green, and have altogether such a flourishing appearance, that everything else in the neighborhood looks sickly in comparison. It is unfortunate that we as yet have very few facts to satisfy the incredulous of the truth of these things, as all of the extended experiments—only two or three in number—have been made by one gentleman, Mr. Forster, in Morayshire. On a *wired* plot of 25 square rods, he raised an enormous crop of barley, being at the rate of 104 bushels per acre, and an unheard of abundance of straw, equal to 9,390 lbs. per acre. The grain was larger, the barley was better, the straw was brighter and sweeter, than any on record. The most obstinate must, however, be convinced, when they learn that *electro-cultural* societies are forming on a large scale. But a few days since, I saw a circular giving notice of a species of electro-cultural convention, at Tring, between London and Birmingham.

It is to be supposed that under this new system of feeding, our crops will surpass the quantities of our wildest dreams; twenty years hence, we shall wonder how we ever considered 80 bushels of wheat to the acre a large crop, or how we ever looked upon a turnip weighing 15 lbs. as respectable. Mr. Ross's potato no doubt felt lonely; had there been others near to encourage it, it would unquestionably have been 7 inches in diameter, rather than 7 in circumference. When the people of this country become fully imbued with these ideas, we may expect to see the whole island studded over with posts and traversed by iron wires; and if Ireland does not follow the example, she will lose her name of the Emerald Isle, being entirely eclipsed by the superior verdure of England.

America will not fail to follow so laudable an example, and there will shortly be as great a strife for electricity as there is now for guano. Deeds of property will include the right to collect it, and lawsuits will contest the right of taking it from rivers and lakes. Lecturers will not get enough to show their classes without paying heavily for it. We shall have no more thunder-storms, as the electricity will all be converted into food before enough can get together to make a flash of lightning; even a black cat's back will cease to give forth sparks when stroked the wrong way, in the dark! (*c*)

I fear that this new doctrine will not find much favor in New England, and that the farmers in my own State, the Land of Steady Habits, will look especially shy at it. Perhaps, after all, it is as well to wait for more light. I might recommend to them the enclosure of small experimental plots in their gardens, were I not morally certain that on the very next washing day, their wives and daughters would seize upon the posts for the extension of their clothes lines, and so defeat the efforts of science.

It was at first expected that manure would be of no further use, but it is now said that its action will be much more powerful with the help of this new ally. That I may not seem to speak in too trifling a manner on this subject, I must add that there is no doubt whatever that these gentlemen are right in assuming the existence of electrical currents. That they do exist, is beautifully proven by the system of telegraphic communication established in late years, transmitting intelligence with the rapidity of thought by the employment of this invisible agent.

An ingenious clock-maker in this city has applied it to clocks. He has two wires, one going directly into the earth, and the other communicating with the gas pipe, which also enters the earth sooner or later, in its course, thus completing a galvanic circuit. The points of the wires are brought upon opposite sides of the pendulum, and being positively and negatively electrified, the alternate attraction and repulsion impart the requisite motion to the pendulum. This fact alone demonstrates the existence of quite powerful currents of the electric fluid. Whether it may be profitably employed in practical agriculture is another question, upon which, though holding ourselves open to conviction in future, we may well be excused for entertaining some doubts at present. (*d*)

JOHN P. NORTON.

Edinburgh, Feb. 1, 1845.

(*a*) The hated, detested things, which we will do our best to have abolished within twenty years.

(*b*) We are glad to have this information so soon at hand, to corroborate what we told our readers in the February Number of the Agriculturist. It will be seen from the date of his letter, that Mr. Norton could not have known that we had just written upon this subject.

(*c*) Our correspondent is somewhat facetious upon the subject of electricity applied to growing vegetation—half doubting, and rather more than half believing, we fancy. To give our readers, therefore, an idea of the immense quantity of lightning in the clouds, and to convince them that the subject is not a chimerical one, we will give an ingenious calculation made by M. Arago, of the quantity of lightning drawn from the clouds by means of paratonnerres. He states, that in an ordinary storm, a hundred sparks would be transmitted through a small breach of continuity in the conductor, of which the combined effect would be sufficient to kill a man, and these would pass in ten seconds. As much lightning would therefore pass per minute as would destroy six men, and as much per hour as would kill 360 men. He calculates, in this way, that the paratonnerres erected by Beccaria, on the palace of Valentino, combined with the effect of the pointed parts of the roof, must take as much lightning per hour from the clouds as would be sufficient to destroy 3,000 men.

(*d*) Public attention was called to the effect of atmospheric electricity on vegetation as early as 1819, by Decandolle and Sprengel, in their work on the Elements of the Philosophy of Plants, and has been more or less experimented on ever since by the philosophers of Europe. We gave this letter of Mr. Norton's to Wm. A. Seeley, Esq., to be read before the last meeting of the Agricultural Association in this city. To this he added an elegant and learned discourse on electricity, which will hereafter appear in the Society's Transactions. Several gentlemen in this vicinity have already planted and hung their wires, with a view of making a series of experiments on this highly interesting subject the present year.

MAKING DRAINS.

THE plan here is to cut with the common spade, a ditch 24 inches wide and 14 to 18 inches deep, nearly straight at the sides; then with a small spade, 6 inches wide, a vault is cut one spit deep in the centre of the bottom. If the clay is tough, small sassafras or mulberry saplings, about six or eight inches in diameter, are procured and quartered, after being cut or sawed in pieces 20 inches long; three of these are laid across the vault, at the two ends and middle of each plank or puncheon, of pine or oak; the plank is then laid length-wise on these; pine tops or tufts of grass are laid along the edges, to keep out the dirt that might fall through the open spaces; after this the dirt is pulled in with hoes, &c. The underdrains thus made appear to do well so far. If there is sand or pipeclay, plank one inch thick and six inches wide, are set on edge at each side of the vaults to keep them from caving in. T. CLAGWELL.

Snow Creek, N. C.

SLAUGHTERING SHEEP FOR PELTS AND TALLOW.

I observed in a recent number of a newspaper, published in the State of Ohio, that 30,000 sheep's pelts had been shipped from the port of Cleaveland (I think it was) during the past season. Is this an indication of right practice on the part of Ohio farmers, or rather does it not show a very bad state of things? If, as is confidently asserted, England alone purchases from her colonies and from other countries 50,000,000 pounds of wool every year, to supply her woollen manufactories, and the demand there is constantly increasing; and if we, at present, raise only five-eighths of the quantity required for our own consumption, which is yearly increasing also, surely this is no time, nor is ours a country in which to slaughter sheep for their pelts and tallow. Even supposing they were coarse, long-wooled sheep, it would have been far better to have purchased good

Merino bucks to cross with those flocks, than to have disposed of them as they have been disposed of.

Depend on it those sheep will be missed during the coming season. The wool business is destined to increase in this country at a rapid rate, and to an enormous extent. The demand for wool, here and abroad, will be second only to the demand for cotton as regards the number of pounds, and I hesitate not to say that in value, in dollars and cents, the wool *crop* will, ere many years, surpass the cotton crop. All things considered, we can raise wool in this country, and put it into our own and foreign markets, cheaper than it can be done by any other people on the face of the earth; and other nations must and will have it of us, because they cannot afford to raise it on their high priced lands as cheaply as we can on our Western prairies. If they will not take it of us, they must be content to be driven out of every market by the superior cheapness of our own manufactured article. Nay, our opinion is, that it will not be long ere we shall see some of those far-famed Saxony flocks turning their noses westward, to join their brethren already there. We can raise wool on our prairies at prices which even we ourselves at present hardly dream of. A finer soil, a sweeter feed, and a better air for them cannot be found; and raising wool there is, at present, and for years will be, the best business the farmer can follow. We have already gone at it; let us keep at it, and hear no more of slaughtering sheep for their pelts and tallow. T.

PENNING HOGS.—CORN AND COB MEAL.—MANURE.—GROWING TURNIPS.—A valued correspondent thus writes us from Silver Bluff, South Carolina: "I have a large stock of hogs with which I have not heretofore taken more pains than was barely necessary to raise my own meat. I am now preparing to pen all of them, since I find that the same amount of ground corn and cob-meal fed to them in their range, will enable me to keep them fat in pens. This I have *proved on trial.* Penned, they make a vast quantity of manure, which is valuable for crops of all kinds grown here. I have never been able to grow turnips. I feel the want of them for my hogs at this season, and think with the aid of bone-dust and a little more pains, that I can produce them."

We have answered all our correspondent's inquiries by letter, and hope to get a bone mill and all other things at a reasonable rate. We are glad to see him so judicious in his improvements.

TO MAKE WHALE-OIL SOAP FOR WASHING FRUIT TREES.—Take 18 lbs. potash and 30 lbs. of foot oil and put in a barrel. Every other day pour upon the mixture 12 quarts boiling water, stirring it every day for a few minutes. When the barrel is filled up with water the soap will be fit for use. Now put about 4 gallons of soap into a hogshead of 150 gallons of water, and apply the suds to the trees by aid of the garden engine. This application is one of the best destroyers of insects known, and at the same time it is an excellent stimulant to the growth of all vegetation.

TO KILL CROWS.—Steep a quantity of corn in arsenic, and place it in different parts of the planted field. Crows and blackbirds will eat it with avidity, which soon causes their death.

WESTERN CALENDAR FOR APRIL.

THIS is the busy month of the year. The residue of the corn crop should be planted as early in the month as practicable. Hemp may be sown throughout this month, but it would be better to complete the operation by the twentieth. If the sowing were commenced the middle of March, and finished by the 20th of April, it would be in good time. There would then be near four weeks from the *ripening* of the fruit and last sowing, thus allowing full time for cutting. It must be observed that early sowed hemp will not ripen in as short a time as that which is sowed later; and, therefore, there must intervene a longer time between the first and last sowing, than between the time of commencing and finishing cutting. Hemp should be cut as soon as possible after it begins to ripen, as it injures by standing only a few days, after it is fully ripe, which may be known by the male plants beginning to die. Hemp for seed should be planted early in this month. It requires very rich ground to make it produce well. That which has been manured answers best. It should be finely pulverized by plowing and harrowing. If plowed the preceding fall, so as to have the benefit of the winter freezing, it will be the better prepared.

Plant sweet potatoes about the 20th of this month, having previously sprouted them in a hot-bed, made with stable manure. Gardening generally should be attended to early in this month; but beans should not be planted before the fifteenth, in latitude 39°, unless you are prepared to protect them from frost, by covering them with boards. In that case they may be planted early in the month. If the thermometer (Farenheit) falls to 45° by 9 o'clock at night, the beans should be covered, as experience proves that they will generally be injured by frost, when the thermometer ranges below forty-five, at the hour mentioned. Barley may also be sowed early in this month. Spring wheat (if any should be cultivated) should be sowed early in March, or late in February, if the ground is in suitable condition.

The crop being now pitched, most of the spring work done up, and a little leisure afforded, the sheep should be washed, late in the month, and sheared. Lambs should come in April, especially of the Merino breed, which are not sufficiently hardy to bear the cold winds and frosty weather of March. Besides, the ewes will now have good pasture, and will nurse their lambs so well that scarcely any of them will be lost. Sows may litter in this and the previous month. It is best that pigs should not come too much together, unless you have separate lots for the sows. The garden should be put in complete order, the walks dressed, and every part of it cleared of weeds, preparatory to working the corn. If this should have been planted as early as the 25th of March (early planting generally succeeds best, as not being so liable to be injured by drought), it will require plowing, during this month, and the plows should be kept running, while the sheep are being sheared, and the garden put in order. The corn should have at least one plowing before the hoes need to follow. It would be better to run first a single furrow, opposite to the way it was planted, then two furrows, with the bar next to the corn, when the hoes should follow. Let the middles be split a few days after. A. BEATTY.

Prospect Hill, Ky.

European Agriculture—No. 2.

My last letter from Nismes being written after a very hurried journey through France, at a comparatively uninteresting season of the year, conveyed but little information respecting the state either of horticulture or agriculture in that country.

Culture of the Olive.—The section of level land lying between Nismes and Montpelier is cultivated chiefly with olives, and the Frontignac and several other fine varieties of grapes. The olives had just been gathered and pressed. This tree does not bear until it is ten years of age, but is very long lived. I saw some at this place which are known to have existed in the time of Cæsar. Surrounded by an abundance of food as we are in America, it is difficult for us to estimate the very great importance of the olive to the poorer classes in France. Requiring no cultivation, and no further labor than to gather the fruit and express the oil, it can be afforded at a cheap rate. This oil with coarse bread constitutes almost the entire food of the lower classes of France and Italy. They have also some cheap kinds of light wine, at a few sous per bottle, which is much used.

Culture of Grapes.—The cultivation of the grape in Europe is a subject in which I feel much interested, and on which I have already obtained some information. After being accustomed to the extensive glass vineries of Boston, Philadelphia, and Flushing, I was forcibly impressed with the great simplicity of its culture both in France and Italy. In some instances planted in sandy or gravelly soil, in which scarcely anything else would grow, without stake or trellis to support them, and consisting of two branches, each pruned down to three buds, they are made to produce some of the finest fruit in the country. In other instances they are tied to stakes and trellises, and moderately manured. It is very desirable to obtain some varieties of these delicious European grapes, that will succeed well with us in the open air. That such can be obtained, I have no doubt; for they are found flourishing upon some of the most exposed points of the Alps, and where there is a foot or more of snow during the winter. An American gentleman of distinguished literary merit, and some time a resident of Italy, has been making a collection of these vines, and through his kindness I hope to send some of them to Flushing this spring in time for planting out. By another year we shall, in this case, be able to test them fully, and to aid, perhaps, in introducing to the lovers of good fruit in America some new and very superior hardy varieties of the grape. I much regret that my visit here is not during the vintage; at that season I should have full opportunity of seeing the different varieties, and testing their respective merits.

Dr. Delile.—At Montpelier I had the pleasure of seeing Dr. Delile; he called on me only a short time before I left, and I had therefore but a limited time for conversation with him. He is a very interesting man of about fifty, and is at the head of the Medical School and director of the Botanic Garden, at Montpellier, one of the best establishments of the kind in France. He is enthusiastically attached to horticulture, and gave me much valuable information respecting its condition in France and Belgium. His botanic garden has in it one of the only two trees of the *Gingko biloba* in Europe, that have borne fruit.

Route to Rome.—From Montpellier we went via Cette to Marseilles, and thence, via Genoa and Leghorn, to Civita Vecchia, the seaport of Rome. At Genoa, the city of palaces, I visited one or two fine gardens. The Pescari palace has some fine grottoes and fountains, good statuary, very large orange trees and camellias in the open ground, and in bloom. There was also a conservatory and pineries.

Villas and Gardens of Rome.—It has taken me some days to examine in detail the most important villas near Rome. The style of gardening in all of them is strictly artificial, and where consistently carried out is strikingly novel and beautiful. The Villa Pamphilia is the most elegant one near Rome. It is situated on a farm four or five miles in circuit, a large part of which is laid out in drives, walks, and terraces—in one place bordered with a large extent of beautiful turf, and in others with groves of large trees of the cypress, the cork, oak, and the stone pine; the conical thick foliage of the former, contrasting finely with the flat, close top and picturesque appearance of the latter. There were also long hedges of tree-box and laurel, 12 or 15 feet high, entirely impenetrable and perfectly flat on the top and sides; beautifully close hedges of our common monthly rose, well trimmed and in bloom. All the grounds were studded with fountains, grottoes, and statues. A parterre graced the front of the house, and a small forcing house was placed on one side. But the most beautiful things of all, and the effect of which it is impossible to describe, were the long arbors of oranges and lemons, the rich glossy foliage covering the whole outside, and the bright yellow fruit hanging in clusters within; while on the ground beneath were camellias, ericas, and other exotic plants. This villa gave me a very good idea of the Italian style of landscape gardening, and was beautiful beyond description. Prince Torlonia, a rich banker, has been recently planting a villa in the English style of landscape gardening, and has politely sent me a card to visit it, which I shall do to-morrow.

Tivoli.—We have just returned from Tivoli in the mountains, interesting from its beautiful cascades and scenery, and for the ruins of a palace of Adrian, which was immense, covering a space one mile and a half in circuit. Tivoli is a charming spot, with pure mountain air and scenery not easily surpassed.

Domestic Stock.—They have good cattle here, but none that will compare with the English. Buffaloes are used in the campagna, and the oxen are often handsome, with horns sometimes three feet in length. The cows are small, and much like our native cows in form. It is amusing to see the peasants milking them from between the legs *behind!* where a single kick will send milker and milk both topsy-turvy! Besides these, they use the milk of goats and asses. There is a milk establishment opposite my window, and the donkeys *bray* lustily every morning, by way of reveille. Their milk is said to be particularly rich. The old Roman breed of horses is still kept up, and I have seen uniformly better horses here than in any other city. They are not large; are of a glossy black, well formed, with thick mane, and a tail sweeping the ground. Agriculture in Italy is a century behind the age. For a plow they use a narrow triangular piece of plank, with a stake put on one end for a handle, and the oxen draw it over rather than through the soil, by their horns.

Rome, Feb. 14, 1845. S. B. Parsons.

Ladies' Department.

FOR FARMERS' DAUGHTERS.

The Boys' Department of your excellent periodical pleases me so much, that I should like to induce you to give a column to the girls upon the same plan; and if you are disposed to act upon this suggestion, I will occasionally furnish a few hints on subjects which may be useful to that interesting portion of our community—the farmer's younger daughters.

It is true, much that engages the attention of boys, can be pursued with great advantage by the girls—and what brother can, or would refuse to let his sisters help him to take care of the chickens, or gather the nuts, aye, and to share the profits as well as the pleasure? Yet, as many of their pursuits are altogether unsuitable for girls, so there are many which the female members of a family must take exclusively to themselves; and of these, a portion is necessarily left for the young ones, as being less laborious, though perhaps not of less importance than the weighty cares which occupy the time of their mother and elder sisters.

One of the earliest lessons to be impressed upon the minds of American daughters is, that nothing they are ever called upon to do in their father's house, can degrade them in the estimation of good or thinking people; and if their education has led any to form a different opinion, it has been conducted upon false principles. An American woman should blush at being suspected of feeling ashamed to be useful, or of doing her duty in that state of life unto which it has pleased God to call her.

Children love to run after their mother, and by observation, and being allowed *as a favor* to help, they early learn most of the laborious duties which, as they grow older, they are to share with them. If you will allow me to point out others which may exercise their thinking powers, or improve their mechanical skill, and perhaps lead them to love reading, and give habits of patient labor, which last is of primary importance to all who wish to lead useful lives—I will try what I can do for the improvement and amusement of country girls.

Taking Care of Eggs.—Spring has now come, and if the boys have taken good care of the hens during the cold weather, there will soon be plenty of eggs to look after. No doubt the boys will be glad enough to collect them, to select those which are to be put under the hens, and see that the hen-house is whitewashed inside, and the nests in the nicest order—there is some fun in all that—but the girls must take care of those which are to be sold, or kept for family use. They will do very well in baskets for a week or two; but they can be preserved perfectly good for many months if properly attended to when fresh.

Preserving Eggs.—Some years ago I visited a friend who lived upon a large farm near the northern boundary of Pennsylvania, and as it was late in the autumn, expressed surprise at the liberal supply of eggs served up at every meal in cakes, puddings, &c. The lady told me it was all due to the *little girls!* As soon as the hens began to lay in the spring, they gathered the eggs, and covered each one with a thick coating of lard or other soft grease, and then laid them, with the small end downwards, in regular piles on the cellar floor; or packed them in earthen jars, which were then filled with melted fat (*not hot*), this kept out the air; and these always afforded plenty for use during the whole year, besides those taken fresh from the nests, and sent to market. This grease or lard can be purified afterwards so as to answer for soap, by washing in hot water, and straining through a cloth, then put away to cool. Packed in this way, I have known eggs sent to China, and have been assured by those who took them, that they were as good when they reached Canton, as when they left New York. Quite too fresh for the subjects of the "Brother of the Moon," the mighty ruler of the Celestial Empire, who never think an egg fit to eat until it has smell enough to disgust a schoolboy. Another way of keeping eggs is, to pack in jars and pour lime water over them, which keeps the air out, and does not injure them; for everybody knows that eggshells are composed of lime. I know a lady who allowed her children to build a wall of eggs against the cellar wall, by placing them in a bed of slacked lime, kept in its place by a board in front and one at each end, which were taken away when the wall was finished; in this way they kept perfectly well for several months. But behold! when they wanted to use the eggs, they found the lime had hardened, and was so incorporated with the shells that they were obliged to break the lime with a hatchet, which demolished the wall and eggs at the same time!

Culture of Flowers.—The cultivation of flowers is universally acknowledged to give a degree of refinement to the mind and manners, that many of our farmers' wives and daughters feel, and regret the want of—therefore the children should be allowed a place for these loveliest gifts of God to man. None can feel like the farmer, the force of Sir Isaac Newton's beautiful aphorism, "The fruits are God's bounty, the flowers but his smiles"—and I should like to teach the girls some of the important properties and uses of plants, as well as their botanical names; for the more they study the works of their bountiful Creator, the better they will love Him, and the happier they will be. This will be the work of some future day; at present they must prepare for gardening by collecting seeds; then make an alphabetical list of the names, numbered regularly from the beginning—get labels of any soft wood, neatly cut and painted white, on which write the numbers while the paint is wet; and when the seeds are sown, mark the place with a label corresponding in number to the name on the list. They must not suffer their brothers to dig the borders until all the plants have appeared above ground, or they will be cut off by the spade—in the Middle States the end of April is soon enough. They may dig and manure little spots around the posts of sheds and fences, and plant vines which will soon repay the labor by their beauty and fragrance, as well as the shelter they will afford to little birds; and shed an air of elegance around the roughest farm house. The coral honeysuckle (*Lonicera caprifolium*) is common—and there are plenty of wild vines in the woods, the Virgin's bower (*Clematis Virginica*) and sweet honeysuckle (*Lonicera grata*), for instance, which can be transplanted safely at almost any season; but early spring is perhaps the best—and nothing can be more beautiful than to see them growing together, and mingling the sheet of snowy blossoms of one with the bright red of the

other. I much prefer them where they have at least the appearance of being useful for shade, or to hide an unsightly fence, to having them trained over those fanciful frames of lath and whitewash, which are an offence against good taste, and only to be tolerated for the sake of the flowers which cover them; the more completely they are covered the better! Nasturtions (*Tropæolum majus*) may be planted near the palings of the garden, where they are highly ornamental; and the young fruit makes an excellent substitute for capers, when put in jars of strong vinegar, and corked tight, without any other trouble.

Flower Baskets.—When there is a lawn, or opening near the house, a *flower basket* is one of the most picturesque and easily attained objects that can be thought of. Here the boys must help, and plant four stout posts firmly in the ground, so as to enclose a bed about six feet square—the rougher the posts are the better, and they should be left about four feet above the earth. In this bed put monthly honeysuckles and clematis, or any other ever-blooming vines, and surround the whole with a rough railing. Some brush wood thrown around the roots will protect them from the fowls, as well as give support to the young vines, which will soon climb over the whole, and in a year or two it will be a mass of verdure and fragrance, which will require no other care than a little manure thrown over the roots in autumn.

Another basket, which is now much in fashion, is made by driving stout stakes close together, leaving about three feet out of the ground, so as to enclose a circle or oval of any size you like. Cover the stakes closely with bark nailed on—fill this up with compost and earth well mixed; to give it more the appearance of a basket, twist a couple of grape vines, and fasten round the edge on the top, and put another twist from end to end over the whole, for a handle. When the basket is finished and the earth prepared, plant in the middle a cluster of ever blooming roses, of different colors, and around them all the flowers that can be procured to make as great a variety as possible—near the edge have verbenas, and other delicate trailing plants, to hang over the sides—let some be trained to twine over the handle, and the effect of the whole is charming.

The Dairy.—In beautifying the environs of the farm-house, these little handmaids of Flora must not overlook the dairy, which is always the abode of neatness, and by a little timely care, may be made also the dwelling of good taste. There are many flowers which thrive best in moist shaded spots, such as the pretty Mitchella repens, the delicate Forget-me-not (*Myosotis palustris*), the whole family of Irises, and the fragrant violets, with a hundred others that can be brought from the woods, and would make the place a little Eden for the birds and bees, particularly if the trees could be wreathed with trumpet creeper (*Bignonia radicans*) and the foreign ivy (*Hedera helix.*)

But I have already gone so far beyond the limits I had fixed for this first essay, that I can only wish my little friends success in their labors of love, and bid them good bye. E. S.

Silk Rags.—The foundation of many a woman's fortune has been laid, by hanging up a bag in the corner of her kitchen for saving rags. Linen and cotton have been the only ones considered worth saving; but a French chemist has recently discovered that silk rags, hitherto generally thrown away, are still more valuable. He transforms them by a process called *palingenesis*, into new silk again, in the same way that India-rubber is drawn out into filaments and woven into a durable material. By means of a dissolvent, the silk rags are made into a glutinous paste, and like fused glass, on coming into the air, re-acquire all their original strength and tenacity.

Spring Work for Farmers' Wives.—Now is the time to see that everything appertaining to the spring-house or dairy-room is put in order and all needful repairs made at once. Stop up all holes, so that neither rat nor mouse can enter—get the gauze window fitted in to keep out the flies and insects which will soon be buzzing about—and see that the walls and ceiling overhead are thoroughly whitewashed. This may seem rather early work for our northern farmers; but the truth is, if we do not get it done this month, ten to one our husbands will be so busy the rest of the Spring, that they will not have time to attend to it all. See that the churns, tubs, and pails, are bright and in order, and that plenty of wide, flat pans for setting the milk are got ready. The more shallow the milk is set in pans, the more rapidly will the cream rise, and a greater quantity in proportion to the milk will be obtained. When deep, narrow milk pans are used, considerable loss ensues from want of proper rising of the cream. Preserve plenty of calves' rennets for curdling the cheese, and see that the press is all right. Cheese is getting to be a very important export to Great Britain, and we may soon monopolise that market by paying proper attention to its manufacture among us. I conclude my homily with a hint for the benefit of all good husbands; and as I am a poet by nature, they will excuse my giving it in rhyme:

For work ahead prepare the way,
For this ne'er give your wife a nay;
You can't expect a harvest prime,
Unless you sow your seed in time.

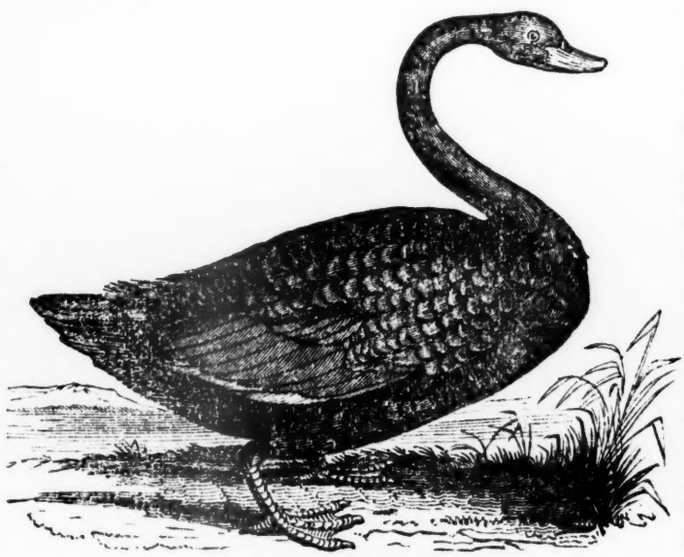
Dolly Homespun.

Yeast Cakes.—Put two handsful of hops to three quarts of water, to which add, if you like, a couple of potatoes. When the potatoes are done, mash them in a pan with a sufficient quantity of flour to form a thick batter after the liquor is strained on to it. When nearly cool, add a teacup of good home-made or brewer's yeast, and keep warm till it becomes light. As soon as it is risen, add Indian meal till quite hard. Form into a roll of a few inches diameter, which cut in thin slices and put in a moderately warm place to dry. This yeast has the advantage of all others in this particular, it may be laid aside in bags and will keep sweet during warm weather. When you wish them for use, soak them thoroughly in milk-warm water, and take three or four for two common sized loaves.

A nice and wholesome Sweetmeat for Family Use.—Pare or not, as you choose, a quantity of sweet apples to fill an earthen or stone jar; add a little sugar and molasses, and if the apples are not sufficiently juicy, a little water; cover with a thick paste of flour and water, and put into a brick oven with your bread. Let them stand till morning. They will have the flavor of baked pears, and can be had fresh at all seasons. Prosa.

Boys' Department.

THE BLACK SWAN.—The Black Swan was first discovered in Swan River, and is found in vast flocks on the coast of New Holland, and in Van Dieman's Land. It is black all over save a few of the quill feathers, which are usually tipped with white. The bill is bright red. It is not as large a bird by one-third as the White Swan; but at the same time it is graceful and dignified in all its movements. We have often seen them sporting in the clear, beautiful little lakes in the London Parks, and on noblemen's estates in different parts of England. The Duke of Devonshire had quite a flock of them at his princely estate of Chatsworth when we visited it. We should like to see these rare and beautiful birds introduced into this country.



BLACK SWAN.—FIG. 35.

The above cut is a spirited representation of one. In rearing them, it is important to have plenty of clear water for their diversion; in all other respects they may be treated just like geese.

CHINA GEESE.—In your last No. of the Agriculturist, we noticed a spirited cut of Chinese Geese, accompanied with an inquiry where they could be procured, and also who was the owner of those exhibited at the late State show at Poughkeepsie. In answer to the inquiry, we would reply, that we imported them about ten years ago from China, and have some of the original stock still on hand. We have kept our flock (which has always been large) pure from any admixture. We know of no other flock of pure Chinas of this description. We ordered the first lot, and the Chinese sent us all males, and we had to wait another year before the second lot came, which, fortunately, proved to be all females—they probably not liking us "outside barbarians" to raise any progeny. Their superior qualities are, extremely delicate flavor, great hardiness of constitution, and unusual prolificness. They will lay, if well fed, all the year round; and generally hatch and raise two broods of goslings in a season, without any other feed but grass after they are hatched. We have now a brood which were hatched in September, at the time of the show, which are already full grown. Spring goslings frequently lay in the fall. They have extremely beautiful plumage, always alike; a wild, shrill cry, unlike that of any other geese; an erect, graceful carriage, and would be quite an ornament to any gentlemen's grounds. They are very correctly described in your article. You may insert this in your paper if you think proper.

Although we have never sold any of these geese yet, still, if any of your friends would like to purchase them, we could part with two pairs in the spring, at $4 per pair, at our farm, or any quantity of goslings after they are full fledged in the summer, boxed up and delivered in New York at $5 per pair. This we do, believing them to be a valuable acquisition to the poultry-yard, and for the benefit of the community. A. & H. MESIER

Wapping's Creek, Dutchess Co., N. Y.

Now, boys, you see where you can get some pure bred China geese; and the sooner you commence breeding them, and show Mr. Jack Chinaman that you are an "*inside* barbarian," the better. You might raise hundreds of them at a good profit, on poor land which would scarce support anything else. Thousands of geese are annually raised on the grass of the heaths of England, too poor even to support a sheep. In passing through Epping forest, we once met a single flock of about 800 geese coming up to London to be pastured on the heaths in its vicinity, and fattened for the market. It is a good business there, and managed almost exclusively by women and children. If we recollect right, Cobbett asserted that the geese thus raised and fattened in Surrey, were equal to the wheat grown in Northumberland.

The next information we desire is, to know who has got any pure bred, clean legged white or buff-colored bantams, not larger than stout pigeons. Several of our young friends are on tiptoe to possess some of these, and many are the epistles in round school-boy hand that we have received recently, inquiring their whereabouts.

EXPERIMENTAL CROPS.—The boys should request their fathers to let them have a small patch of land on which to grow experimental crops this season. The school-boys on a model farm near Dublin, last year, raised in a large field, a crop of potatoes averaging 750 bushels per acre, and thus supported themselves at school, and made fair progress in their studies. A humble gardener in the vicinity of Cheshire, raised 64 bushels of good wheat weighing 70 lbs. per bushel, from a trifle over a half acre of highly cultivated ground. Another person produced 28 bushels of wheat from a quarter of an acre. The secret of getting these great crops lies in manuring properly and pulverising the soil very deep, say two or three feet, which they did with a spade; but you can do it much easier with a subsoil plow.

In making experiments, keep a careful record of all expenses: such as the value of labor, manure, seed, and rent of land; the value of the crop at harvesting, and the increased worth of the land. Then strike the balance between the two sums, and the difference will be the loss or gain.

NEW YORK STATE AG. SOCIETY.

The regular monthly meeting of the Executive Committee of the N. Y. State Ag. Society for February, was held at the Society's Room in the old State Hall on the 13th. The President, B. P. Johnson, Esq., of Oneida, in the chair. Present—Messrs. Prentice, Hillhouse, M'Intyre and Tucker, of Albany —Mr. Beekman, of Columbia—Messrs. Walsh and Vail, of Rensselaer—Mr. Enos, of Madison, and Mr. Lee, of Erie.

Reports of Committees.

Mr. Johnson, from the committee to whom was referred the applications for the prize for the best managed Cheese Dairy, reported that they had awarded the Gold Medal to Alonzo L. Fish, of Cedarville, Herkimer Co., and three vols. Transactions to Abraham Hall, of Holland Patent, Oneida county.

Mr. Johnson also reported that the committee had awarded the prize of $25, for the best Experiment in the Culture of Indian Corn, to George Geddes, of Camillus, Onondaga county.

Mr. Johnson also reported that the committee on that subject, had awarded the prize of $20, for the best Essay on Farm Management, to John J. Thomas, of Macedon, Wayne county.

Mr. Beekman, from the committee to whom was referred the Essays on the importance of scientific knowledge in prosecuting successfully the ordinary pursuits of agriculture, reported that the committee had examined the three Essays submitted to them, neither of which, in their opinion, was written with sufficient care to entitle it to the premium: and they recommend that the same prize be offered another year.

Mr. Lee, from the committee to whom the application for the prize for the best Text Book on Agriculture for the use of Schools, was referred, reported that two books we e submitted to them, neither of which was sufficiently adapted for the purpose to entitle it to the prize, and concluded by recommending that the same premium be again offered.

Mr. M'Intyre, from the committee on Essays on Rotation of Crops, reported that they had awarded the prize, $20, to the writer of the Essay marked A., the author's name being unknown to them. [It was written by John J. Thomas, Macedon.]

Mr. R. L. Pell, from the committee on Essays on the Culture of the Apple, sent in a written report, awarding the prize, $20, to the Essay sent in with the report. [This Essay was written by John J. Thomas.]

Mr. Prentice, from the committee on Essays on the prevalent Disease in Potatoes, reported that they had come to the conclusion that neither of the Essays was such as would warrant them in awarding the premium.

Mr. Lee, from the committee on Essays on Manures, reported against awarding the premium to the Essay submitted to them. He also reported that the committee had awarded a Silver Medal to R. L. Pell, of Pelham, Ulster county, for his report of Experiments to show the comparative value of different kinds of food for cattle.

Mr. Walsh, from the committee on Essays on the Culture of Silk, stated that but one Esaay had been snbmitted to them, and that evidently not intended for the premium, as it did not contain the matters required in the prize Essay. The Essay was referred to the committee of publication.

The committee on Wheat, at the Annual Meeting, recommended that a premium of $15 be awarded to Mr. E. J. Ayres, of Tompkins, provided he furnished certain farther particulars, which Mr. Ayres having furnished, a premium of $15 was voted him, on his wheat crop, amounting to 114 bushels and 38 lbs. on two acres.

Mr. Beekman presented the Annual Report of the American Institute, which was referred to the committee of publication.

Messrs. Walsh, Lenox and Prentice were appointed a committee on the Library.

The discussion and arrangement of the List of Premiums occupied most of the afternoon, and not being completed, the Board adjourned to meet again on the 15th.

Feb. 15th.—The President in the chair. Present—Messrs. Vail, Hillhouse, M'Intyre, Lee, Enos, and Tucker.

The Premium List was taken up, and after a few trifling additions, was ordered to be published.

The Board then proceeded to the appointment of County Corresponding Committees in each County. [We are obliged to defer the publication of this list of committees till our next.]

A resolution was adopted, directing the Corresponding Secretary to open a correspondence with the County Committees, Superintendents of Common Schools, and others, for the purpose of furthering the objects of the Society, and especially the introduction of the study of the principles of Agriculture, into our Schools and Academies.

Messrs. Tucker, Beekman and Lee were appointed a committee of publication.

After the transaction of a variety of other business, the Executive Committee adjourned to meet again on the Second Thursday of March.

A room has been fitted up, in the old State Hall, expressly for the use of the State Society, where the meetings will hereafter be held. Entrance on Lodge, corner of State street.

Payment of Premiums.

All money premiums awarded by the Society, may be obtained on application to Thomas Hillhouse, Treasurer, or to Luther Tucker, Rec. Secretary, Albany. ☞ All premiums not demanded within *four months* after the award, will be considered as donations to the Society.

Agricultural Lecturer.—We are pleased to inform the public that the Executive Committee of the New York State Agricultural Society have made an arrangement with the Corresponding Secretary, Dr. D. Lee, to make a tour through various portions of the State, for the purpose of collecting useful information, and giving occasional lectures on agricultural subjects. We have no doubt his visits will be received by the farmers with warm approbation, and that due notice only will be required to insure the attendance of large audiences to hear his lectures. Dr. Lee is at present a member of the Assembly, and during the session may be addressed here on any matters pertaining to his proposed tour.—*Cultivator.*

Guano Manure—Caution.—For full directions in the use of guano, we recommend our readers to Dr. Gardner's article, page 108. We intended to have written brief directions for this Number, but these embody pretty much all necessary to be said upon the subject. Those who desire more particular information, can have the pamphlet recently published by Mr. Bartlett on this subject, by applying to us. We fear there is going to be a perfect mania on this subject, and we earnestly recommend those who would purchase, to buy only a small quantity for experiment at first, and after fully testing this, they can tell whether it will be for their interest to obtain more. Much *spurious trash* will also unquestionably be offered on sale; the farmers, therefore, cannot be too careful of whom they purchase. Such as is at present offered in this city has been subjected to rigid analysis.

FOREIGN AGRICULTURAL NEWS.

By the steam packet Cambria we have our European journals to the 4th of March.

MARKETS.—*Ashes*—no change in prices. *Cotton* has advanced from ¼ to ⅜*d.* per lb., and a large and active business has been done in it, speculators alone taking during the past four weeks 67,000 bags. The stock on hand at Liverpool, on the 1st of March, was 790,000 bales, against 625,000 same period last year. *Flour and Indian Corn* dull, and had declined. *Provisions.*—Beef continues in good demand; the stock on hand is considerably less than last year. Pork has fallen a trifle. Cheese firm, and the trade greatly on the increase. Butter remains without change. Lard has advanced; the stock on hand is quite light. *Tallow* has improved. *Tobacco* same as per our last.

Money is plenty, and the rates of interest 2 to 3 per cent. The Bank of England has £15,453,303 of bullion in its vaults, equal to about $75,000,000 of our money. An extraordinary amount, and yet it is but a pittance of the enormous wealth of Great Britain, and a small item of the accumulated means of her powerful empire.

American Stocks have improved since the reception of the news of the resumption of payment of the Pennsylvania interest; and as other states follow this praiseworthy and honest example, confidence will be restored. Americans can now begin to hold up their heads abroad, and consider themselves honorable men.

Business Generally is very good, and all branches of trade are well employed.

Iron has Advanced 20s. per ton, in consequence of the large contracts for railroads.

Duties to be Repealed on American Products.—Sir Robert Peel proposes the following important reduction of duties on our exports:

Ashes, pearl or pot,	6d. per cwt.
Bark for drying or tanning,	3d. do.
Beeswax,	2s. do.
Cotton,	2s. 11d. do.
Hides, dry	6d. do.
do. wet,	3d. do.
do. tanned, not otherwise dressed,	2s. per lb.
Lard,	2s. per cwt.
Lard oil,	20 per cent.
Rosin,	2s. per cwt.
Staves, not over 72 inches in length, 7 do. breadth, 3½ do. thickness,	28s. pr 50 cub. ft.
Tar,	2s. 6d. pr 12 bbls.
Turpentine, raw,	1d. per cwt.
Turtle shell,	1s. per lb.

We shall now be able to export lard oil in considerable quantities, the high duty heretofore preventing this to any extent.

Remedy for Blight and Insects on Fruit Trees.—Dissolve 1 lb. of soda in a gallon of rain-water; shake this up in a bottle with a pint of spirits of turpentine, when they will amalgamate; then, by adding more water, make up the quantity to 10 gallons. It should be applied with an engine having a fine rose.

Jerusalem Artichokes in Orchards.—Good crops of these may be obtained by planting them in rows 2 or 3 feet apart. They do not exhaust the soil like potatoes, and rather like the shade. Poor land suits them very well, as they have the power of drawing a larger portion of nitrogen from the atmosphere than any other cultivated plant. They pulverise the soil without exhausting it, leaving it in good condition for growing trees.

Growing Cabbages and Beans together.—The beans are set in close double rows, with wide intervals between each pair of rows, in which the cabbages are planted in May, and afford a most luxuriant crop of green food upon heavy land.

To prevent Mildew in Wheat.—Mix 50 lbs. silicate of soda with 80 lbs sulphate magnesia, and spread upon the wheat in the month of March or April. If lime does not exist in sufficient quantity in the land, add 15 to 30 bushels to the acre, newly slacked, and spread broadcast on the growing wheat.

Pickling Meat.—Professor Refiensque denounces the use of saltpetre in brine, intended for the preservation of flesh to be kept for food. That part of the saltpetre which is absorbed by the meat, he says, is nitric acid or aquafortis—a deadly poison. Animal flesh, previous to the addition of pickle, consists of gelatinous and fibrous substances, the former only possessing a nutritious virtue; this gelatine is destroyed by the chemical action of salt and saltpetre, and, as the Professor remarks, the meat becomes as different a substance from what it should be, as leather is from the raw hide before it is subjected to the process of tanning. He ascribed to the pernicious effects of the chemical change all the diseases which are common to mariners and others who subsist principally upon salted meat, such as scurvy, sore gums, decayed teeth, ulcers, &c., and advises a total abandonment of the use of saltpetre in the making of pickle for beef, pork, &c., the best substitute for which is, he says, sugar, a small quantity rendering the meat sweeter, more wholesome, and equally as durable.

Clipping Extraordinary.—The clipping of horses having become almost a mania, a few days ago a person residing at Southwell actually clipped and singed a feeding cow, his property, in the same manner that horses are clipped, and which he considers to be an improvement to the cow. Pigs are also talked of as likely to undergo a similar operation; indeed, it is said that one man has already clipped his grunter, and is proud of his appearance.—*Stamford Mercury.*

Cirencester Agricultural College.—The Committee of the proposed New College have selected the design of Messrs. Daukes and Hamilton, architects of Gloucester and Cheltenham, from a large number, among which, we understand, were some from architects of great eminence in London. The College will occupy the delightful site in Lord Bathurst's grounds, known as Port-farm, near the railway station, at the junction of the Stroud and Tetbury roads, thus presenting a perspective of two bold fronts; the farm itself being attached to the end of the main building, altered to meet the domestic requirements of the Institution, and decorated sufficiently to be in character with the new structure, which, with this addition, will form an entire frontage of nearly 250 feet. The design is in the Tudor style, of three stories high; the upper story being lit by picturesque old-fashioned dormar windows, of the style so prevalent among the collegiate buildings of Oxford. The centre is occupied by a bold tower, the upper part of which is intended to form an observatory for meteorological and other scientific purposes. We understand that the committee intend to complete only the main portion of the building at present, and that the works are to be speedily commenced.—*New Farmer's Journal.*

Agricultural Statistics of France and England.—There are about 4,800,000 hectares pasture land in France, and 25,000,000 of arable land. The result is a scarcity of cattle, forage, horses, and manure. France annually imports horses and cattle to the value of 100,000,000 francs. The following is a comparison of the statistics between France and England:

	France.	England.
Horses,	40,000	170,000
Cattle,	800,000	1,250,000
Sheep,	5,200,000	10,200,000
For each million hectares.		
Horses,	1,000	13,077
Cattle,	20,000	96,154
Sheep,	130,000	770,000
For each million of inhabit		
Horses,	1,667	32,692
Cattle,	33,333	221,154
Sheep,	216,667	1,961,528

Cure for the Distemper in Cattle.—The Earl of Essex says, that this first showed itself in one of my cattle by its discharging abundant saliva from the mouth, with sore and inflamed tongue and gums, very dull, no appetite, confined bowels, and very hot horns. I then desired the bailiff to give the animal one-half pint of the spirits of turpentine, with one pint linseed oil: repeating the oil in twenty-four hours, and again repeating it according to the state of the evacuations. At the end of twenty-four hours more, the bowels not having been well moved, I repeated both turpentine and oil. In two days the beast showed symptoms of amendment, and in three or four took to his food again, and did perfectly well. All the yard beasts, and two of the fattening beasts, have had it (five others I had sent to London before the disease appeared), and all have been treated in the same manner with perfect success. Half a pint of turpentine is the smallest, and one pint the largest, dose during three or four days. Little food, besides oatmeal gruel, was given.

Population of England, compared with the Surface of Land Cultivated.—A calculation by Mr. W. K. Brown, of the probable population of England in 1861, and of the territorial surface as the source of sustenance, estimated upon the state of population from 1791 to 1841, was submitted to Sir Robert Peel in May, 1844. In this it is stated that the

Acres of land cultivated and uncultivated in 1791,	32,342,400
Population estimated,	7,500,000

* Four acres and a fraction for each person, including maintenance of horses.

Acres of land rated or cultivated in 1841,	30,000,000
Uncultivated,	2,342,400
	32,342,400
Population,	15,000,000

Two acres and a fraction for each individual, including maintenance of horses.

The population returns from 1831 to 1841, give an increase of population in ten years, in England, of 2,000,000, or about 13,000,000 in 1831. The same increase going on to 1851 (or seven years to come) will make at that period—

Population in England in 1841,	15,000,000
Increase from 1841 to 1851,	2,000,000
Population in 1851,	17,000,000
And in 1861, 2,000,000 more from 1851,	2,000,000
Population in 1861,	19,000,000

—*Condensed from the Jour. of Ag.*

Improvement of Barren Lands.—There are men now living who could remember when 40,000 acres of land, belonging to the late Lord Leicester, in Norfolk, which are now worth 40,000*l.* a year, were nothing but rabbit warrens and barren heaths. Lord Yarborough had 30,000 acres of land in Lincolnshire, which formerly let at 4*s.* 6*d.* per acre, and at this low rate ruined almost every farmer who rented it; this same land is now rented at an average of 25*s.* per acre, by farmers who are all making such large fortunes that many of them keep their carriages.

Age of the Queen Bee.—The precise age of the queen bee is not ascertained, but she has been known to live at least four years, and is perhaps the longest-lived insect we have. It has occurred to me that old queen bees are larger than young ones; if so, their growth is at variance with the received belief that "the period of growth in insects is during the larva condition." May there not, however, be an analogy in this respect between the queen bee and the mole cricket, which increases in size with age? But that insect, if I may so call it, belongs to a class that have no "abstinent, or chrysalid state." Some old queen bees have a slight yellowish mark on their sides, which I never observed in young ones.

Mildew has been shown by naturalists to be a minute fungus, whose germs are floating in the atmosphere, and only require for their development, a particular condition of the surface of whatever plant they attack. Thus, their growth is, doubtless, favored—perhaps insured—by the exudation of sap from the ruptured vessels of the wheat plant, on which they may alight. This rupture may be caused by a plethoric state of those vessels—perhaps, also, by a deficiency of silex in the epidermis of the straw; and this condition is brought on by whatever occasions a great flow of sap, or causes it to continue too long; and the indications of it are a deep green color in the leaves and straw, and the continuance of this dark green color a few inches below the ear after the chaff has begun to turn off. When this symptom appears, a bad case of mildew is inevitable.

That the excessive use of nitrogenous manures will produce this disease is evident, from the mildew which follows the use of nitrate of soda and guano, on rich soils and in growing seasons, as a dressing for wheat—from that, also, which attacks the wheat growing on the sites of dung-heaps, when other parts of the field are free from it—and also from the usually diseased state of wheat grown in highly cultivated gardens. A continuance of warm and humid weather, which produces a rapid and luxuriant growth of leaf and straw, and keeps the plant in this state when the grain ought to be approaching maturity, is highly favorable to the development of mildew.

Value of Coal Ashes.—Part of a piece of wet heavy land was dressed with them; the result was most satisfactory. It could be easily seen at a considerable distance how far they had been applied; and the crop was quite as heavy as it could have been expected, had good manure been applied. I imagine they act not directly as a manure, but, like charcoal, they are instrumental in absorbing ammonia and other gases, which plants are known to feed rapidly on; and to yield it to the plants, without giving off any of their own substance, which remains unchanged for years.

Great Products of Potatoes.—Mr. Joseph Meloney says he has discovered a mode of culture by which he can obtain 1,000 bushels of fine mealy potatoes from one acre of land. He intends to publish a pamphlet detailing the means by which this extraordinary produce is to be obtained.

Alderney vs. *Durham Cows.*—In a late Number of the Chronicle one of your correspondents said that an Alderney cow would not cost near so much to keep as those large beasts usually kept by milkmen. I have now one small milch Alderney and two large Durhams, and the Alderney will eat nearly as much as the other two!

To Secure the Fruiting of a Tree.—Select a tree well furnished with blossom buds, just as they are beginning to expand. Take a potato-fork, and with it make holes all over the surface of the space occupied by the roots, heaving the earth by pressing on the handle, and with this exertion make holes about 18 inches apart. Having dissolved 1 oz. of nitre to 3 gallons of water, fill the holes with the solution. No manure must be given. Should, after stoning, the tree appear unable to sustain the fruit, the following preparation may be applied in the same manner. To 1 gal. of blood add 1 gal. of water and 1 oz. of potash. Stir the whole well together, and when it has settled, pour off the liquid, and mix 1 gal. of this liquid with 1 gal. of water, and pour it into holes made in the manner already described.—*Condensed from Gar. Chron.*

Editor's Table.

CATECHISM OF AGRICULTURAL CHEMISTRY AND GEOLOGY, FOR THE USE OF SCHOOLS. By James F. W. Johnston, of Scotland. With an introduction by John Pitkin Norton, of Connecticut. Published by Erastus H. Pease, Albany, N. Y. pp. 74. Price 20 cents. We are mistaken if this little book does not work a revolution in the study of agricultural science in this country. No person can hereafter complain about not understanding the scientific terms of agriculture; for this little publication so clearly and simply explains them, that the merest child can understand. Moreover, as it can be read in three hours, and costs but a pittance, there are none so poor or so busy that they cannot spare the money to purchase and the time to read it. It has the recommendation of the Secretary of State and other eminent men, and is to be introduced into all the common schools of New York. Such is our estimation of the value of this publication, that we mean to give some extracts from it in our next. For sale by Saxton & Miles, 205 Broadway.

SPIRIT OF THE TIMES. This sprightly sporting paper has come out in handsome new type of a larger size generally than the last volume, which greatly improves its appearance, and makes it altogether more readable—at least to our over-worked eyes. Several new contributors have come to the aid of the Spirit in its present volume, "men of mark" and full of fun. Any one in search of horse lore or the sports of the field, and who wants an hour's hearty laugh once a week, will "please walk up to de captin's offus" and douse his "tin" for the Spirit. Published by John Richards, No. 1 Barclay street, N. Y. Edited by Wm. T. Porter. A weekly folio of 12 pages. Price $5 a year.

STABLE ECONOMY, by JOHN STEWART. The American edition, with notes and additions, by A. B. Allen. Published by D. Appleton & Co., 200 Broadway, N. Y., 378 pages, illustrated with numerous wood-cuts. Price $1,00. This work is considered the best ever published in Great Britain on the subject of which it treats, and is standard authority there. Whether we have improved it any in this edition, we shall leave the public to judge. It is very handsomely got up by the publishers, and is one of the most useful and elegant books for its price which has been issued from the press this season.

THE TACONIC SYSTEM; based on observations in New York, Massachusetts, Maine, Vermont, and Rhode Island. By Ebenezer Emmons, M. D., pp. 65, quarto, illustrated by wood-cuts and plates. Price $1. We are not much of a Geologist, and do not feel qualified, therefore, to give an opinion of this work; but others who have made this noble science a study, speak highly of Dr. Emmons' book, and say that he has completely established his views upon the Taconic system. The plates are uncommonly well done. The tracing is soft and delicate, and at the same time very distinct.

THE SOUTH-WESTERN FARMER. Edited by N. G. North and M. W. Philips, Raymond, Miss. A weekly paper of 8 pages. Price $3 a year. We have received No. 1, of Vol. 4, of this spirited and excellent periodical, commencing a new series. It is arrayed in a new and handsome dress, and does great credit to its enterprising publisher. Dr. Philips, the junior editor, is one of our own most valued contributors, and it affords us great pleasure to bear witness to his and Mr. North's abilities in the conduct of a paper which is doing great good at the south-west, in advancing the science and a more enlightened practice of agriculture in that highly favored region. We wish the South Western Farmer the success it richly merits, and will gladly receive subscriptions for it at this office. In return, both editors will please consider themselves duly appointed agents of the American Agriculturist, and we respectfully request all other editors thus to act for us.

A PRACTICAL TREATISE ON HUMANITY TO HONEY BEES: or, Directions for the Management of Honey Bees, upon an improved and Humane Plan, by which the lives of Bees may be preserved, and abundance of Honey of a superior quality be obtained. By Edward Townley. For sale by Saxton & Miles. 162 pages. Price 50 cents. Any one desirous of learning all about bees cannot do better than purchase Mr. Townley's little book, or give him a call in Canal street, where he keeps an extensive apiary.

CRABB'S ENGLISH SYNONYMES, with copious Illustrations and explanations, drawn from the best writers. A new edition, enlarged. By George Crabb, M. A. Published by Harper and Brothers, 82 Cliff st., New York. In one volume, double columns, 8vo., 535 pages. Price $2,37. This book holds the same distinguished rank among the Dictionaries of Synonymes, as Webster's or Johnson's great works do among defining dictionaries. In this last edition, the author has made some striking improvements, arranging the words in a scientific manner, arising from their alliance in sense, or from the general nature of the subjects; thus affording the advantage of a better connected explanation of terms, more or less allied to each other. At the same time, the purpose of reference is more fully answered by an index so copious, that the reader may immediately turn to the particular article sought for. We think he has eminently succeeded in his plan. Every student of the English language, and all who aim to be correct and perspicuous writers, should have this excellent work lying on their table for constant reference.

ECLECTIC MAGAZINE. A selection from the best Foreign Periodicals. By Professor Agnew. Published monthly by Leavitt, Trow & Co., 194 Broadway, N Y. Price $6,00 a year, or $5.00 in advance. The selections for this Magazine are admirable, giving at a comparatively trifling sum the cream of foreign literature.

REPORT OF THE COMMISSIONER OF PATENTS FOR 1844. This is a Document of 520 pages, 8vo., in which Mr. Ellsworth has brought together a much larger amount of information bearing upon Agriculture than in any previous report. It is a work of great labor and value, and every intelligent farmer should make it a point to possess himself of it. Several of the articles are quite elaborate, particularly those of present pressing interest, like the disease in potatoes, and preparation of provisions for the English market. We shall endeavor to give a synopsis of this Report in our next, and in the meanwhile we heartily recommend its perusal to all interested in the advancement of agriculture and the arts.

M'CULLOCH'S UNIVERSAL GAZETTEER. A Dictionary, Geographical, Statistical, and Historical, of the various Countries, Places, and principal Natural Objects in the World, by J. R. M'Culloch, Esq. In which the articles relating to the United States have been greatly multiplied and extended, and adapted to the present condition of the country, and to the wants of its citizens. By Daniel Haskell, A. M. Illustrated with seven large maps. Published by Harper & Brothers, 82 Cliff st., New York. In two volumes, double columns, imperial octavo, of over 1100 pages each. Price, handsomely bound, $6,50. Mr. M'Culloch is known as one of the most able, indefatigable, and accurate writers on Geography, Commercial Statistics, &c., &c., in England; and in his Dictionary before us, with the additions of Mr. Haskell, the Messrs. Harpers have presented the American public later and more reliable information on the subjects of which it treats, than can be found in any other book we know extant, at double its price.

RECENT IMPROVEMENTS IN ARTS, MANUFACTURES, AND MINES, being a Supplement to his Dictionary. By Andrew Ure, M. D. Illustrated with 190 engravings. D. Appleton, & Co., 200 Broadway. pp. 304 Price $1.50. This is an admirable supplement to Ure's great work, and brings down all improvements in Arts to the present day. In this we find an able article of 12 pages, on the different kinds of Guano, with elaborate and exact analyses of them. Caoutchouc (India Rubber) is treated at length. Bread, with illustrations of an improved bakery, interested us much; new light is thrown on Fuel, while Flax, Tobacco, Tea, Stearine, Silk, Chocolate, Coffee, and many other things relating to agriculture, are more or less considered. The Dictionary proper contains 1340 pages, and is illustrated with 1241 cuts. Price $5,00, or with Supplement, $6.50.

BRANDE'S ENCYCLOPÆDIA OF SCIENCE, LITERATURE, AND ART: Comprising the History, Description, and Scientific Principles of every branch of human knowledge: with the Derivation and Definition of all the Terms in general use. Edited by W. T. Brande: Illustrated by numerous engravings on wood. Published by Harper & Brothers, 82 Cliff st, New York, pp. 1352, double columns, imperial octavo. Price, handsomely bound, $4,00. In editing this Encyclopædia, Mr. Brande has been assisted by the most eminent men in Great Britain; and among these we find the names of Cauver, Gwilt, Loudon, M'Culloch, Galloway, Raper, Merivale, and Owen. Such are the merits of this able work, that it immediately became a standard authority. It contains a large amount of matter in a very condensed and concise form, embracing all that is known on the subjects of which it treats, up to the present year. As a Dictionary of reference, there is nothing equal to it.

RURAL ECONOMY IN ITS RELATIONS WITH CHEMISTRY, PHYSICS, AND METEOROLOGY; or Chemistry applied to Agriculture. By J. B. Boussingault. Translated, with an Introduction and Notes by George Law. D. Appleton & Co., 200 Broadway, pp. 507. Price $1,50. The subjects are, Vegetable Physiology and the chemical constitution of its substances; Saccharine Fruits, and Juices; Soils; Manures; Rotation of Crops; Feeding of Animals; Animal Origin; Economy of Animals; Stock in general and its production of Manure; Fattening of Domestic stock; and Meteorological considerations. All these subjects, with their various connections, are treated by the author in a clear, able, and satisfactory manner, and the philosophy of the whole matter considered in its relation and applicability to Agriculture. The work is the fruit of a long life of study and experiment, and its perusal will aid the farmer greatly in obtaining a practical and scientific knowledge of his profession.

BLACKWOOD'S MAGAZINE. An exact fac-simile of the Edinburgh Edition, reprinted by Leonard Scott & Co., 112 Fulton st. N. Y. Price $3.00 a year. We see that Professor Wilson and Sir Edward Lytton Bulwer are contributors to the February number. It is racy, witty, and brilliant, and altogether the best British Magazine issued.

ACKNOWLEDGMENTS.— To Alexander M'Donald, Esq., for the Shield at Eufaula, containing the address, *marked*, of the Barbour Co. Ag. Society, to the President of the Alabama State Ag. Society, on the subject of growing less cotton. We need scarce add that we agree entirely in its cogent reasoning. To the Planter's Banner for a *marked* article, "Farming at Attakapas." It is admirable, and Mr. Murphy deserves high praise for setting so good an example. As soon as we can get up to our correspondence on hand, that has been knocking hard at our door for admission during the past three months, we mean to copy it.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, MARCH 24, 1845.

ASHES, Pots,	per 100 lbs.	$3 75	to	$4 00
Pearls,	do.	4 25	"	4 38
BALE ROPE,	lb.	6	"	9
BARK, Quercitron,	ton,	23 50	"	25 00
BEANS, White,	bush.	1 25	"	1 50
BEESWAX, Am. Yellow,	lb.	28	"	31
BOLT ROPE,	do.	12	"	13
BONES, ground,	bush.	35	"	40
BRISTLES, American,	lb.	25	"	65
BUTTER, Table,	do.	15	"	18
Shipping,	do.	8	"	12
CANDLES, Mould, Tallow,	do.	9	"	12
Sperm,	do.	25	"	38
Stearine,	do.	20	"	25
CHEESE,	do.	4	"	8
COAL, Anthracite,	2000 lbs.	5 00	"	6 00
CORDAGE, American,	lb.	11	"	12
COTTON,	do.	5	"	10
COTTON BAGGING, Amer. hemp,	yard,	14	"	15
American Flax,	do.	16	"	17
FEATHERS,	lb.	27	"	31
FLAX, American,	do.	7	"	8
FLOUR, Northern and Western,	bbl.	4 50	"	4 88
Fancy,	do.	5 00	"	5 62
Southern,	do.	4 50	"	4 88
Richmond City Mills,	do.	5 50	"	5 75
Rye,	do.	3 00	"	3 12
GRAIN—Wheat, Western,	bush.	1 00	"	1 05
Southern,	do.	1 00	"	1 05
Rye,	do.	68	"	70
Corn, Northern,	do.	48	"	50
Southern,	do.	44	"	46
Barley,	do.	56	"	58
Oats, Northern,	do.	29	"	30
Southern,	do.	24	"	26
GUANO,	100 lbs.	2 00	"	2 50
HAY,	do.	33	"	40
HEMP, Russia, clean,	ton,	205 00	"	210 00
American, water-rotted,	do.	105 00	"	185 00
American, dew-rotted,	do.	75 00	"	125 00
HIDES, Dry Southern,	lb.	9	"	11
HOPS,	lb.	13	"	15
HORNS,	100.	2 00	"	8 50
LEAD,	lb.	3½	"	4
Sheet and bar,	do.	4	"	4½
MEAL, Corn,	bbl.	2 44	"	2 75
Corn,	hhd.	11 75	"	12 00
MOLASSES, New Orleans,	gal.	30	"	32
MUSTARD, American,	lb.	16	"	31
NAVAL STORES—Tar,	bbl.	1 50	"	1 56
Pitch,	do.	80	"	1 00
Rosin,	do.	55	"	70
Turpentine,	do.	2 75	"	3 25
Spirits Turpentine, Southern,	gal.	39	"	40
OIL, Linseed, American,	do.	73	"	75
Castor,	do.	65	"	70
Lard,	do.	55	"	65
OIL CAKE,	100 lbs.	1 00	"	——
PEAS, Field,	bush.	1 25	"	1 50
PLASTER OF PARIS,	ton,	2 50	"	2 62
Ground, in bbls.,	of 350 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,	bbl.	6 00	"	8 00
Prime,	do.	4 50	"	5 50
Smoked,	lb.	5	"	7
Rounds, in pickle,	do.	3	"	5
Pork, Mess,	bbl.	8 75	"	13 00
Prime,	do.	6 50	"	8 12
Lard,	lb.	6½	"	7½
Bacon sides, Smoked,	do.	3½	"	4⅛
In pickle,	do.	3	"	4
Hams, Smoked,	do.	6	"	11
Pickled,	do.	4	"	7
Shoulders, Smoked,	do.	4	"	6
Pickled,	do.	3	"	4
RICE,	100 lbs.	3 00	"	3 50
SALT,	sack,	1 35	"	1 45
Common,	bush.	20	"	30
SEEDS—Clover,	lb.	6½	"	7
Timothy,	7 bush.	10 00	"	12 00
Flax, rough,	do.	10 00	"	11 50
clean,	do.	12 00	"	12 25
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	"	3½
Sulphate Soda, ground,	do.	1	"	—
SUGAR, New Orleans,	do.	5½	"	8
SUMAC, American,	ton,	25 00	"	27 50
TALLOW,	lb.	6½	"	7
TOBACCO	do.	2½	"	6
WHISKEY, American,	gal.	23	"	25
WOOL, Saxony,	lb.	45	"	60
Merino,	do.	35	"	45
Half-blood,	do.	30	"	35
Common,	do.	25	"	30

NEW YORK CATTLE MARKET—March 24.

At Market, 1250 Beef Cattle (750 from the South), 800 Sheep and Lambs, and 80 Cows and Calves.

Prices.—Beef Cattle, in consequence of the increased supply, are a little cheaper, and we quote $5.00 to $6.50, with a few extra at $7.00—left 3 to.

Cows and Calves.—All sold at last week's rates.

Sheep—We continue to quote at $1.75 to $4.50.

Hay is very plenty and dull at 5 to 55 cents for loose, by the load.

Remarks.—*Ashes* quite dull. *Cotton* has advanced from ¼ to ½ a cent per lb, since the arrival of the Cumbria, and a heavy business has been done in it the past week. Export from the United States since 1st September last, 980,434 bales; same time last year, 520,050; same time year before, 1,143,619. *Iron, Molasses, Sugar, and Pork* have advanced. *Beef, Cheese, Lard, Butter, Rice, and Tobacco*, quite firm. Other articles continue without change.

Money is plenty at 6 to 7 per cent.

Stocks have fallen a little under the agitation of the annexation of Texas.

The Weather has been mild the past month, with the exception of a week or ten days. It is now quite warm again, and every appearance of an early season. We understand that the crops south of us look very promising.

Business Generally has opened quite brisk.

Answers to Correspondents.—S., Z. B. Wakeman, W. D., John P. Norton, G. L. Cockrill, John Lewis, A. Beatty, J. E. Teschemacher, B. C. D., Edmund Ruffin, and One of the Boys, are received and shall have place in our next. We have the Prize List for the next Annual Show of the N. Y. State Ag. Society in type, but it is unavoidably crowded out to make room for other matter. It shall appear in our next.

SEWARD'S SEED SOWER.

This machine is a new and superior invention, and answers to sow most kinds of seeds with great accuracy and despatch. Price $10. For sale by A. B. ALLEN, 205 Broadway.

PREMIUM EAGLE, SUBSOIL, AND OTHER PLOWS.

The subscriber having been appointed sole agent in this city for the sale of the celebrated Premium Plows, made by Ruggles, Nourse & Mason, of Worcester, Massachusetts, now offers them at the manufacturers' home prices. They are calculated alike for the Northern Farmer and Southern Planter, and embrace all varieties. Price from $3 50 to $11 50.

The great number of premiums which these plows have obtained at the most important plowing-matches, and the universal satisfaction they have given wherever introduced, render it unnecessary to particularise their merits. They are made of the best materials, are highly finished, and combine light weight and easy draught, with great strength and durability. Though the first price is higher than the common kinds, they do their work in so superior a manner, and with a draught so much easier for the team, that they are universally preferred where known. It has been proved, that a single pair of oxen, horses, or good mules attached to the Eagle plow, No. 1, in any reasonably friable soil, will easily turn a furrow of 6 inches deep by 12 inches wide. In addition to the above good qualities, being made of the best materials and highly finished, these plows last much longer than the common kind: they are consequently much the cheapest in the end.

SUPERIOR HAND AND HORSE CULTIVATORS.

These are made at the same manufactory. Price $3 to $6 50.

NEW AND IMPROVED DRILLING MACHINE.

This is calculated for sowing all kinds of seeds. Price $10.

A. B. ALLEN, 205 Broadway, N. Y.

HOVEY'S SEEDLING STRAWBERRY.

Of which the largest berries are from five to six inches in circumference, and their quality not surpassed. See Magazine of Horticulture, and Agricultural papers generally.

For sale by Philetus Phillips, Middletown Point, N. J. Agents: John Moore, No. 31 Fulton street, New York; Henry A. Dreer, 97 Chestnut street, Philadelphia; Payne and Gregory, Lynchburgh, Va.; T. M. Hunt, Auburn, N. Y.; S. O. Loomis, Windsor, Conn.; Thomas T. Bleyler, Bordentown, N. J.; D. C. Goodale, Chimney Point, Vt.; J. B. Ackerman, Goshen, N. Y.; Jesse O. Dissoway, Richmond, N. Y.; H. J. Sickles, Albion, N. Y.; Josephus Shann, Rahway, N. J.; B. P. Winant, Rossville, N. Y.; Jacob W. Dillon, Kingston, N. Y.; Wightman and Turner, New London, Conn.; Charles Raymond, New Canaan, Conn.; M. A. Santon, Norfolk, Va.

The plants ordered by agents will be forwarded with the utmost punctuality at such times as to reach their destination on the 1st, 15th, and 30th April. Purchasers, therefore, by giving the agents their orders seasonably, with reference to the above dates, can be ready to receive their plants immediately on their arrival, while fresh and in good order.

A sheet containing particular directions for the cultivation of this and other varieties of the Strawberry (chiefly extracts from the Magazine of Horticulture, published at Boston), is furnished gratuitously with the plants sold. Price of Plants, $1.50 per 100.

February, 1845. a1 2t

PERUVIAN GUANO.

The subscriber will keep constantly on hand for sale in large or small quantities, the best quality genuine Peruvian Guano.

Price in single bags, containing from 125 to 175 lbs., 2½ cts. per lb.
" over half a ton to one ton,..... 2¼ " "
" over one ton to five tons,..... 2⅛ " "

The Peruvian Guano is worth *nearly double* the African, as will be seen by the different chemical analysis; and this is more particularly proved by actual experiments by farmers on different crops.

Guano is the cleanest and most convenient manure known, and especially recommends itself for the garden and conservatory, being free from weeds, always ready at hand, and very easy to be applied. A. B. ALLEN, 205 Broadway.

IMPORTED ENGLISH GRASS SEEDS, &c.

J. M. THORBURN & CO., 15 John street, New York, have received by late arrivals from England, a variety of the most improved Grass Seeds, cultivated by the farmers of Yorkshire, Northumberland, and Devonshire, which will be found worthy a trial. Among several sorts are the following:

Cynosurus cristatus (Crested Dog's Tail Grass), excellent for sheep, producing upwards of 6,000 lbs. to the acre. 50 cents per quart.

Festuca pratensis (Meadow Fescue), for horses, cattle, and sheep—produces very early in the Spring. 25 cents per quart.

Festuca loliacea (Darnel-like Fescue Grass), possessing all the valuable properties of Rye Grass and few of its defects; its produce is larger; it springs earlier and improves by age—well adapted for meadows which are periodically overflowed. 25 cents per quart.

Festuca ovina (Sheep's Fescue.) Linnæus affirms that sheep have no relish for hills and heaths that are destitute of this grass. 37½ cents per quart.

Poa nemoralis (Wood Meadow Grass.) Its early growth in the Spring, and its remarkably fine succulent and nutritive herbage, recommend it strongly for admission into the company of the superior permanent grasses. 37½ cents per quart.

Poa trivialis (Roughish Meadow Grass), most valuable for moist rich soils and sheltered situations. Oxen, horses, and sheep have a marked partiality for it. 25 cents per quart.

Poa pratensis (Smooth Stalked Meadow Grass), not less valuable than P. trivialis, earlier in leaf, and will thrive with less moisture. 25 cents per quart.

Also, 200 lbs. Madder Seed, crop 1844, $1 per lb. The tract of Gasparin, on the treatment of Madder, gratis.

Multicole Rye, a native of Poland, will grow in the usual soil suited to Rye; its produce is wonderful on light soils. 12½ cents per lb.

Spurry, well adapted for poor sandy soils, and very rapid growth. 25 cents per lb. See Report of Commissioner of Patents.

White French Field Carrot, superior to all others. Mr. Hamilton, of Vermont, raised last season 1,200 bushels on a half acre, and found them superior to all other carrots for stock. Price $1 per lb.; 2 lbs. to an acre.

Essex Spring Wheat, $3.50 per bushel.

Early Prince Albert Peas—ready in eight weeks—50 cents per quart; with every variety of Garden Seeds that can be procured.

SALE OF FULL BLOODED NORMAN HORSES.

The subscriber having relinquished farming, will offer at public vendue, at his farm in Moorestown, Burlington county, New Jersey, nine miles from Philadelphia, on Tuesday, the 20th of May next, his entire stock of Norman Horses, consisting of two imported Stallions, "Diligence" and "Buonaparte;" two imported mares—three full-blooded stud colts, one, two and four years old—two full-blooded Fillies, three and four years old—two Fillies by "Diligence," from a half-blood Canadian Mare, three and four years old, and one Filly four years old, by Diligence," from a well bred English Mare, broke and kind to harness.

The undersigned deems it unnecessary to speak at large of the qualities of these horses, so much having been said of this particular importation (which is believed to be the only one ever made to the United States), in all the principal Agricultural papers. In a few words, they are the *Canada* Horse, on a larger scale, combining the form, activity and hardihood of that well known race, with greater size and strength. "Diligence" has been a remarkably successful Stallion; he has been exhibited at the Fairs of the Pennsylvania and New York Agricultural Societies, where he was not entitled to compete for the premiums, but received the highest encomiums from the Committees. At the Fair of the American Institute, in New York City, in October last, he received the Silver Medal of the Institute.

It is expected that a large number of the Colts of "Diligence" will be on the ground on the day of sale, some of which, no doubt, may be purchased. EDWARD HARRIS.

Moorestown, Burlington Co., N. J. }
March 15th, 1845. } a1 2t

DEER FOR SALE.

Two young Deer, a buck and doe, for sale, perfectly tame. Price $75, delivered caged, on board a steamboat at Albany.

Address, A. L. LINN, Schenectady,
a1 1t or A. B. ALLEN, New York.

EXTENSIVE SALE OF IMPROVED SHORT HORNED CATTLE.

Having become overstocked, I find myself under the necessity, for the first time, of publicly offering my cattle for sale; and that the opportunity to purchase fine animals may be made the more inviting, I propose to put in my ENTIRE HERD—such a herd of improved Short Horns as has never before been offered by any individual in this country. The sale will embrace about fifty animals, Bulls, Cows and Heifers; all either imported, or the immediate descendants of those which were so, and of perfect pedigree. Those imported were from several of the best stocks in England, selected either by myself or my friends.

It is sometimes the practice at sales of this kind, where the interest involved is considerable, for the proprietor to protect himself by bye bidders, or some other kind of management, or for the owner to stop the sale if offers do not come up to his expectations or the requirements of his interest. Such practices have a tendency to lessen the interest in public sales of this character, especially with those who cannot attend without considerable personal inconvenience. But in this case, assurances are given that no disappointment shall arise to the company from either of the causes mentioned, and a good degree of confidence is felt that there will be no dissatisfaction from the character of the cattle themselves. They shall all be submitted to the company, and sold at such prices as they choose to give, without any covert machinery, effort, or understanding with any person; reserving to myself only the privilege of bidding openly on three or four animals, which shall first be designated. This reservation is made that I may not get entirely out of the stock of some particular families which I highly esteem, and that could not probably be replaced.

A full catalogue will be prepared and inserted in the May number of the Cultivator.

The sale will take place at Mount Hope, one mile south of the city of Albany, on Wednesday, the 25th day of June next, at 10 o'clock, A. M. E. P. PRENTICE.

Mount Hope, near Albany, March 15, 1845.

3t

☞ As the subscriber intends being present at the above sale. he respectfully tenders his services to such of his friends as wish to purchase from this herd, and who may find it inconvenient to attend personally to bid. Any instructions they please to give him as to choice of animals and prices at which to purchase, they may depend upon being faithfully executed. Mr. Prentice is a gentleman of honor and integrity, and whatever is stated above about his entire herd being sold strictly as advertised, the public may depend upon will be done.

A. B. ALLEN, 205 Broadway, N. Y.

NEW AND IMPROVED POUDRETTE.

Made by the Lodi Manufacturing Co., may be had at the office of the Company, No. 43 Liberty Street, New York, or at their Factory on the Hackensack River, in New Jersey, or by letter, *post paid*, addressed to "*President of the Lodi Manufacturing Co.*, New York," or from the several agents who advertise it for sale, in the country.

Terms, *Cash on Delivery.*—For one Barrel, $2; 2 do., $3.50; 3 do., $5; 4 do., and up to 6, at $1.67 each; 7 do., $1.50, is $10.50; and $1.50 per Barrel for any greater quantity—delivered at any wharf or place in the City of New York, free of expense.

The Company have now on hand several thousand barrels of their new and improved article, composed of night soil, compounded with various other substances, every one of which is a good manure by itself.

The Poudrette made by this Company, is different from that made by any other concern in Europe or America. It contains no raw-peat, turf, or meadow mud, or any other inert substance; it is not like the old fashioned Poudrette, which will generally only last for a single crop, but its effects will last for years. It has been tried extensively for the last 2 years on Long Island, in Connecticut, New Jersey, and elsewhere, and has answered to such a degree, that already a very large increased demand for the next season has been manifested.

If used according to *directions*, it will be found *according to experiments* which have been made, to possess the following properties:—

1st. It is quicker in its operation upon vegetable matter than any *other Poudrette* or other Manure. It has ripened corn for table use in 60 days, and will ripen other crops several weeks sooner.

2d. It is more fertilizing; and its fructifying Powers are greater as proved by the increased yield; its effects are lasting, and by its powers of attraction, it absorbs from the atmosphere, humidity, ammonia, carbonic acid, and nitrogen, and retains their fertilizing properties, giving them out only as vegetation requires them for nutrition, thereby obviating the effects of a long drought.

3d. It will be found to be the richest, cheapest, and best manure now in use. *It saves in labor, its whole cost*, in comparison with the labor attending barnyard manure.

4th. Potatoes manured with Poudrette, are not subject to Rot, or other disease, as when manured with barnyard manure.

f1 3t.

AURORA AGRICULTURAL INSTITUTE.

This Institution, recently organized, is located on a farm of over 200 acres, lying in and directly adjoining the village of Aurora, on the east bank of Cayuga lake, in Cayuga county, New York, 16 miles from Auburn, by stage, and 12 miles South from Cayuga Bridge and the Auburn and Rochester Railroad, by steamboat direct, in summer.

Its design is to afford every facility for young men to make themselves thoroughly acquainted with the principles of Agricultural science, and their judicious application to practical Husbandry; and particularly to afford young men from our large towns the most favorable advantages for preparing themselves for Agricultural pursuits.

Terms $150 a year, payable quarterly in advance. No person under fourteen years of age will, as a general rule, be received. Apply to B. R. McIlvaine, 44 Great Jones st., New York, or Rev. W. Roosevelt, 413 Broome st. A. B. ALLEN, 205 Broadway.

CHARLES C. YOUNG, A. M., Proprietor and Principal.
ALEXANDER THOMPSON, A. M., M D., Lecturer on Botany, Geology, Agricultural Chemistry, &c.
DAVID THOMAS, Visitor and Adviser.

March 12, 1845. a1 1t*

EXOTIC, NURSERY, AND HORTICULTURAL GARDENS,

Flushing, L. I., near New York.

The subscribers having established a Nursery with the above title, with the determination of conducting it in the very *best* manner in all its departments, offer for sale, *at reasonable prices*, a *select* variety of

FRUIT AND ORNAMENTAL TREES,

Hardy Shrubs. Herbaceous Plants, Grape Vines of all the best kinds, superior Strawberries, Fastolff Raspberry, Gooseberries, &c.

BULBS AND TUBERS, SUPERB CARNATIONS, DAHLIAS, &c.

AND A MOST EXTENSIVE AND CHOICE COLLECTION OF

GREEN-HOUSE AND STOVE PLANTS,

Embracing everything *new* and *beautiful* in that department, personally selected in Europe during the past summer, of

ROSES AND CAMELLIAS.

We have a very choice collection of the former, full 1,000 varieties, and of the latter nearly 300, all in fine order.

Catalogues of the above will be sent gratis to all applicants, *post paid*, and every order promptly executed. From unknown correspondents, a remittance, draft, or satisfactory reference expected. VALK & CO.

☞ Such papers as we send the above advertisement to marked, will please give it three insertions, and send bill to this office.

a1 3t

CONTENTS OF APRIL NUMBER.

Making Potash,..... 105
Value of Sugar,..... 106
A veteran Horse; The Alpaca;..... 107
Farm of General Washington..
Corn Mill; Peruvian and African Guano..... 108
The Small Grains; Pricking Horses;..... 110
Preventives of Rot in the Potato.....
Corn Marker; To Prevent Birds and Squirrels Destroying Corn; Farm of Mr. Robinson;..... 111
American Agricultural Association;..... 112
Subsoil Plowing.....
The Black Tartarian Cherry, Robert B. Parsons.... 113
To get rid of Dead Logs; Ag. for Students of Divinity
Raising Asparagus by the Arabs;.....
To Remove the taint in Meat.....
The Fox Grape, Jared P. Kirtland..... 114
Home Made Guano, No. 3, R. L. A..... 115
The Pleasures of Horticulture, W. W. V..... 116
Sheep Husbandry in Spain, No. 4, D'Jay Brown..... 117
Virginia Lands, G. P. Lewis..... 118
Culture of Tobacco, P..... 119
Stables of Mr. Gibbons..... 120
Stock of Mr. Prentice..... 121
Different Qualities of Honey, H. Carpenter,..... 122
A Corn Plow, A Traveller.....
Agriculture in Scotland, No. 6, John P. Norton..... 123
Making Drains, T. Clagwell..... 124
Slaughtering Sheep for Pelts and Tallow, T.
Penning Hogs; To Make Whale Oil Soap;... 125
To Kill Crows.....
Western Calendar for April, A. Beatty.....
European Agriculture, No. 6, S. B. Parsons..... 126
LADIES' DEPARMENT:
For Farmers' Daughters..... 127
Silk Rags; Spring Work for Farmer's Wives; Recipes..... 128
BOYS' DEPARTMENT:
The Black Swan; China Geese, A. & H. Mesier;..... 129
Experimental Crops.....
N. Y. State Ag. Soc. Proceedings; Guano Manure—Caution, 130
Foreign Agricultural News..... 131
Editor's Table..... 133
Review of the Market..... 134